



What does good quality COPD care look like

Siân Williams
CEO, IPCRG

Definition

Doing the right things and only the right things in the right way for the right people at the right time in the right place, whatever that means in the local context



Pulmonary Rehabilitation group in Crete during FRESH AIR study



Pulse oximetry, Portugal



WHO's SARAH, a 24/7 virtual health worker, provides digital counselling services to those trying to quit tobacco. <https://www.who.int/campaigns/s-a-r-a-h>

Why do we need it?

- Persistent unwarranted variation (not due to patient difference)
- Need to offer practical tools that
 - Raise awareness
 - Build confidence
 - Build competence
- So it becomes easy to do the right thing

Approach

1. Driven by primary care
2. Social movement for health that mobilises stakeholders
3. Followers and first followers
4. Bring joy to work
5. Operates at scale
6. Teach teachers
7. Value

1. Primary care is the right place for most people with COPD and asthma

- First point of contact
- Community-based
- Throughout life course
- Primary to quaternary prevention
- Can deal with 80–90% of an individual's needs over their lifetime and no more than required

PRIMARY HEALTH CARE

Primary health care is essential health care with its heart in the community. It is the foundation of an effective health system and the key to achieving Universal Health Coverage. Primary health care provides comprehensive and continuous care to individuals throughout their lives.

Primary health care is uniquely placed to provide the spectrum of care required to meet most of the health needs of a population - from prevention and treatment to rehabilitation and palliative care.



Primary health care is high-quality, people-centred, affordable care at every stage of your life.

2. Social movements for health: Raise awareness of the problem and gain commitment to solving it



"Pursuing social change is more of an art than a science. There is no fixed model. No curricula. No rules. No guarantee. It's about reading power. Building relationships. Framing issues. Honing messages. Mobilising supporters. Bringing pressure to bear. All of this in an increasingly complex, networked society in which assumptions that held even a year ago no longer hold."¹

(Sue Tibballs – Chief Executive, Sheila McKechnie Foundation)



1. Nesta. We change the world report. Available at: https://media.nesta.org.uk/documents/we_change_the_world_report.pdf (Accessed August 2023)

3. First followers matter: the Dancing Guy



Photos from <https://www.youtube.com/watch?v=fW8amMCVAJQ>

4. Bring joy to work

- Promote health literacy in asthma
- Common presentation before walk
 - All over the country
 - >50 initiatives
 - >3000 people participated!



4. Bring joy to work

- Building on success of 2022 Walk with Asthma
- Planning local awareness events, e.g. walks in various cities in Portugal
 - Working with health units and local partners (e.g. municipal councils)
- Repeated in Brazil



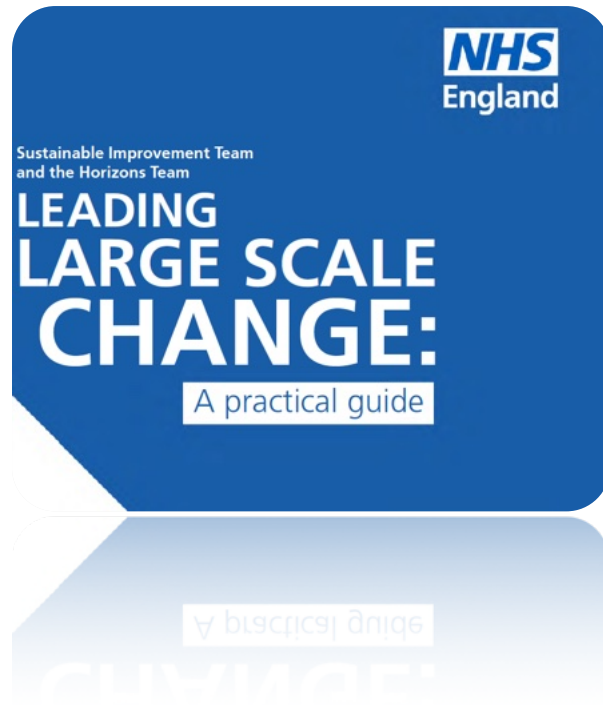
 **CAPA - Cuidados adequados à pessoa com asma**
11 de julho de 2022 -

No âmbito da comemoração do Dia Mundial da Asma, o Movimento CAPA (Cuidados Adequados à Pessoa com Asma), componente portuguesa do projeto internacional designado por ARC – Asthma Right Care em parceria com o Grupo de Estudos de Doenças Respiratórias (GRESF) da APMGF dinamizou atividades de caminhada programadas ao longo do mês do maio por todo o país. A CaminhAsma contou com cerca de 3200 inscrições, envolvendo a participação de aproximadamente meia centena de unidades de sa... [Ver mais](#)



5. Apply evidence about achieving change at scale

NHS Leading Large Scale Change



Pervasiveness:
Affect as many parts of the system as we can

Depth:
Affect ways of thinking and doing – influence cognitive behaviour, and ultimately achieve paradigm shift

Size:
Reach as many geographies as possible

- NHS England. Leading Large Scale Change: A Practical Guide. Available at: <https://www.england.nhs.uk/wp-content/uploads/2017/09/practical-guide-large-scale-change-april-2018-smll.pdf> (Accessed August 2023)



Riding a bike is easy:
unconscious
incompetence



Ah, it's harder than it
looks, this feels awkward:
conscious incompetence



Let me practise, and
concentrate: conscious
competence



Don't even need to think
about it now: unconscious
competence

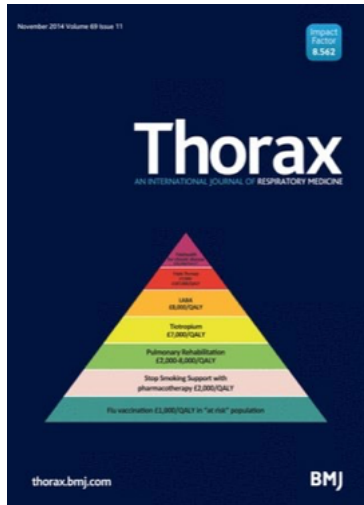


I am confident to teach others because I
understand the process and can tailor my
teaching: conscious competence of
unconscious incompetence

**Achieving
competence – the
journey**

**IPCRG Teach the Teacher
programmes**

7. Value: London Respiratory Network Value Pyramid was an influence – even if outdated



New

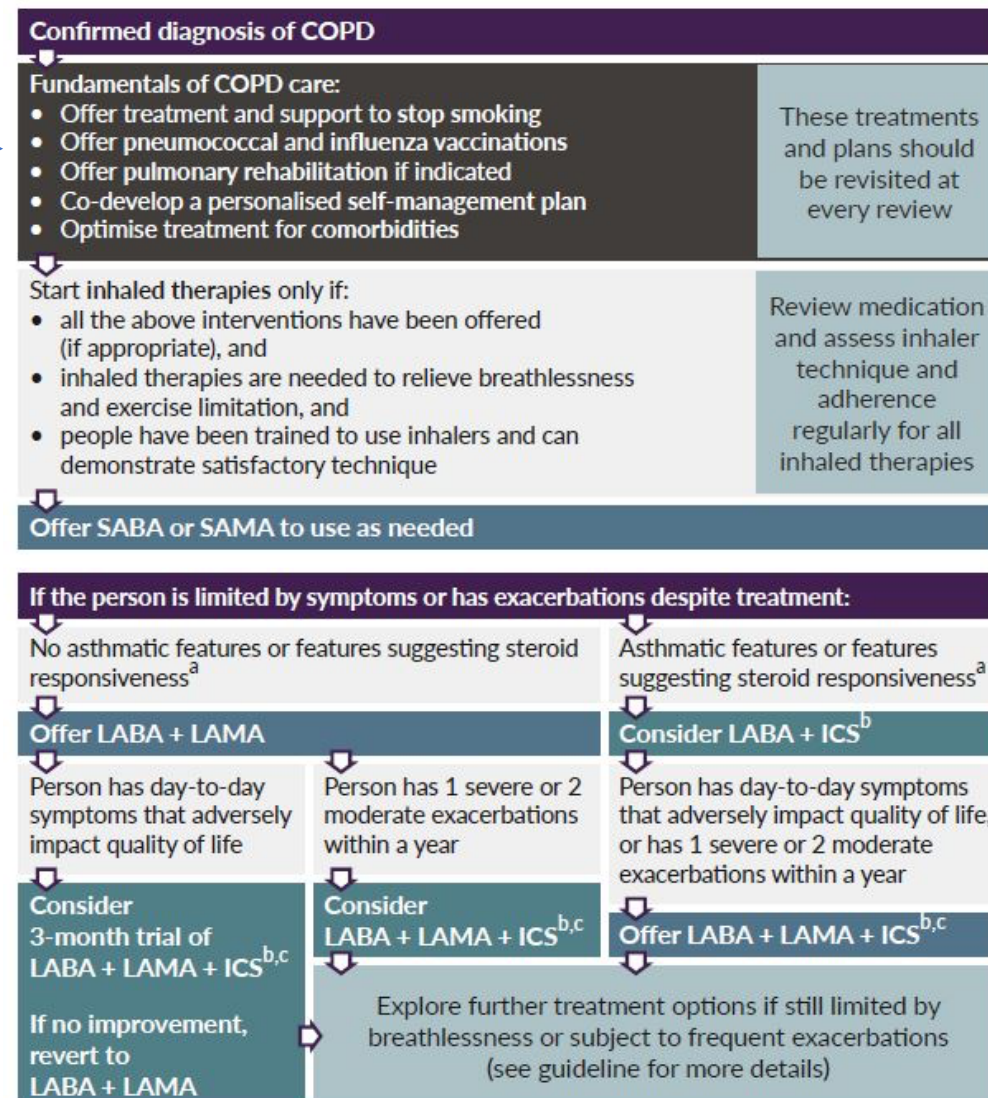


New evidence emerging about value of pharmacotherapy and digital but the principles of including health system strengthening, vaccination, smoking cessation and PR remains important

See the version from NICE, UK



Chronic obstructive pulmonary disease in over 16s: non-pharmacological management and use of inhaled therapies



^a Asthmatic features/features suggesting steroid responsiveness in this context include any previous secure diagnosis of asthma or atopy, a higher blood eosinophil count, substantial variation in FEV1 over time (at least 400 ml) or substantial diurnal variation in peak expiratory flow (at least 20%).

^b Be aware of an increased risk of side effects (including pneumonia) in people who take ICS.

^c Document in clinical records the reason for continuing ICS treatment.

This is a summary of the recommendations on non-pharmacological management of chronic obstructive pulmonary disease and use of inhaled therapies in people over 16. The guideline also covers diagnosis and other areas of management. See www.nice.org.uk/guidance/NG115

See the NICE website for information on how we use offer and consider to show strength of recommendations.

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Behaviour change: Asthma Right Care example

SPOT THE TEACHABLE MOMENT

Instead of simply providing the SABA canister on demand,


Community pharmacists **take advantage** of this **teachable moment**,

Offer accurate information

Refer the individual to a follow-up appointment with their primary care physician when necessary



What does an ideal teachable moment at the community pharmacy look like?



This international scientific workshop contributes to the IPCRG's Asthma Right Care initiative and is organised and funded by AstraZeneca and the IPCRG. The IPCRG received funding from AstraZeneca to develop the Asthma Right Care initiative.
Veeva ID: IT-10611; Date of preparation: August 2023

Hi. Can I have a canister of salbutamol, please?

The image shows a pharmacist in a white uniform and mask standing behind a counter, interacting with a customer in a white tank top and mask. The pharmacist is leaning forward, and the customer is reaching out. In the background, there are shelves with various products, including a sign for 'MASCARILLA KN95 ADULTO 2.95 €' and a sign for 'ARTROSIS'. A poster on the wall reads 'de este verano Nosotros te cuidamos' and 'Consúltanos!'.

— COPD Right Care Strategy Team —



Ioanna Tsiligianni

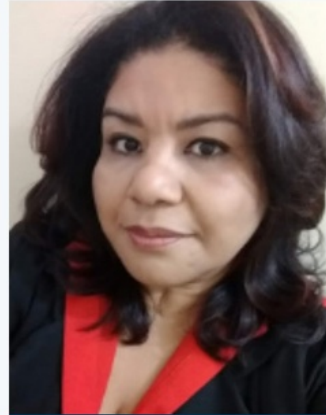
Chair



Siân Williams



Pedro Fonte



Sonia Maria Martins



**Juliana
Franceschini**



Stephanie Williams



Ana Viejo



Darush Attar-Zadeh



Dr Sundeep Salvi

COPD Right Care: what is the problem we are trying to solve?



- Many!!
- Under-diagnosis (access to spirometry)
- Underuse of smoking cessation
- Underuse of bronchodilation
- Overuse of inhaled steroids
- Underuse of pulmonary rehabilitation
- Underuse of palliative approaches to manage every symptom eg breathlessness

What does good quality COPD care look like?

People with exposure to risk factors for COPD deserve...

1. Information, advice on mitigation and public health protection including local and personal risk factors

People with COPD deserve:

2. A primary care service that is competent and confident in **diagnosing** COPD including timely, accurate and objective tests, and information about COPD, its causes, the likely timeline, how it can be managed but not cured, and the consequences of decisions about treatment and self-management
3. A primary care team **competent** to classify the stage and type of their link to disease over time using spirometry, quality of life and exacerbation history and competent to assess other morbidities.
4. **Long term holistic management** according to the guidelines including vaccination, counselling and treatment if they are tobacco dependent, pharmacological and non-pharmacological treatment and referral eg to pulmonary rehabilitation, end of life care
5. To be offered **appropriate inhaler(s)** according to their physical and cognitive abilities and characteristics and appropriate inhaler **technique training** by a primary care professional who knows the importance of eosophinil count and that bronchodilation is the basis of treatment



What does good quality COPD care look like?

6. Yearly flu **vaccination**, pneumococcal, Tdap, herpes zoster, RSV and COVID-19 vaccinations according to their history and national schedule.
7. To agree an **individualised self-management plan** including recognition of exacerbations, smoking cessation, breathing exercises, nutrition, and physical activity taking into consideration mental and physical health, health literacy and access to care.
8. To be asked in a culturally appropriate way about **exacerbations**, to receive reassurance and appropriate treatment and to be followed up to ensure they have adequate support.
9. A **structured** assessment of their symptoms, wellbeing, inhalation technique, future risk and support needs at acceptable intervals with additional follow-up after an exacerbation or a change in management.

When their COPD cannot be managed in their usual primary care

10. To have easy and timely **access/referral** to a primary or secondary health care professional who is skillful in COPD management whenever their COPD cannot be managed in their usual primary care.



What does good quality COPD care look like?

IPCRG is regularly asked by primary care clinicians to define good quality care. We take the view that primary care is person-centred, and therefore the best way to define quality is from the perspective of the person at risk of, or with the condition. From our regular conversations with expert patients and clinicians **we have summarised what good quality care should look like from a patient perspective and how can clinicians provide that in 10 person-centred statements.** These are divided into five areas: Prevention, Diagnosis and communication about the diagnosis, Management, Review and Referral. Our vision is that clinical teams will use them to benchmark their practice and potentially identify an area for improvement. Our own programme of work is steered by these statements. We are currently defining the competencies required to deliver them and the teaching methods and tools to enable delivery.

IPCRG tools that we already offer are listed in blue italics.

People with exposure to risk factors for COPD deserve...

Prevention

- 1 Information, advice on mitigation and public health protection including local and personal risk factors. <https://www.ipcrq.org/howwebreathe> and [helping people quit](#).

People with COPD deserve...

Diagnosis and communication about the diagnosis

- 2 A primary care service that is competent and confident in diagnosing COPD including timely, accurate and objective tests, and information about COPD, its causes, the likely timeline, how it can be managed but not cured, and the consequences of decisions about treatment and self-management. [Desktop helper 14 \(spirometry\)](#), [desktop helper on earlier diagnosis](#), [COPD Right Care wheel](#).

Management

- 3 A primary care team competent to classify the stage and type of their link to disease over time using spirometry, quality of life and exacerbation history and competent to assess other morbidities.
- 4 Long term holistic management according to the guidelines including vaccination, counselling and treatment if they are tobacco dependent, pharmacological and non-pharmacological treatment and referral eg to pulmonary rehabilitation, end of life care. [Desktop helpers 3 \(supportive & palliative approach\)](#), [4 \(quit smoking\)](#), [6 \(ICS and ICS withdrawal\)](#), [7 \(pulmonary rehabilitation\)](#), [8 \(women & COPD\)](#), [10 \(multi-morbidity\)](#) and [12 \(mental health\)](#), www.ipcrq.org/copdwheel
- 5 To be offered appropriate inhaler(s) according to their physical and cognitive abilities and characteristics and appropriate inhaler technique training by a primary care professional who knows the importance of eosinophil count and that bronchodilation is the basis of treatment. eg www.rightbreathe.com
- 6 Yearly flu vaccination, pneumococcal, Tdap, herpes zoster and COVID-19 vaccinations according to their history and national schedule.
- 7 To agree an individualised self-management plan including recognition of exacerbations, smoking cessation, breathing exercises, nutrition, and physical activity taking into consideration mental and physical health, health literacy and access to care. www.ipcrq.org/copdmagazine
- 8 To be asked in a culturally appropriate way about exacerbations, to receive reassurance and appropriate treatment and to be followed up to ensure they have adequate support.

Review

- 9 A structured assessment of their symptoms, wellbeing, inhalation technique, future risk and support needs at acceptable intervals with additional follow-up after an exacerbation or a change in management. [Desktop helper 3](#).

When their COPD cannot be managed in their usual primary care

- 10 To have easy and timely access/referral to a primary or secondary health care professional who is skillful in COPD management whenever their COPD cannot be managed in their usual primary care.

*Interactive version available with hyperlinks. Scan the QR code.




Oct 2023

People with exposure to risk factors for COPD deserve...

Prevention

1 Information, advice on mitigation and public health protection including local and personal risk factors.



IPCRG
work locally collaborate globally
Est. 2005
Respiratory Group

DESKTOP HELPER
for healthcare professionals
No. 4 May 2019 3rd edition

Helping patients quit tobacco: Very Brief Advice (VBA)

An easy, positive and effective way to help tobacco users quit:
Ask, Advise & Act!

VBA works at any point during a consultation about another health matter. VBA is proven to increase the chances of an individual making a quit attempt. It is a trigger; its effectiveness increases if more clinicians use it more of the time; the readiness of the patient to respond is variable. Therefore if we increase the chance of them encountering a VBA trained clinician, we are more likely to catch a ready patient on the right day.

1. ASK: during a consultation about another health matter

Ask ALL patients about tobacco use (smoking or smokeless tobacco) of every clinical contact. Document 'tobacco/smoking' status because this makes it easier for IT DOES NOT NEED ANY ASSIGNMENT OF READINESS TO QUIT!

"Have you used tobacco?"
"I can see from your records that..."

2. ADVISE: about effective ways to quit (and to avoid relapse)

In most IPCRG member countries public health programmes use the 5A's tobacco is harmful, where it is well understood that tobacco causes health problems. However, the impact on awareness across a population can be uneven; to be and personalise a clear strong message. If you find it difficult to do this, consider the 5A's. Give your advice on quitting with a positive and so.

"Do you know the best way of stopping using tobacco is through the 5A's and encouragement, especially in the..."

3. ACT: according to the patient's response or medication

You will now need to ACT. The best way to stop tobacco is with the 5A's. At the end of the visit, the 5A's member countries medicines that are available free for patients as part of a national health service. For the full support document of the 5A's or only available to purchase privately and where there is no programme.

"Would you like to talk about this now?"


No. There's OK. Could I ask your permission to talk about this again next time we meet in case you have changed your mind? If you do, no-consider before then! I would be happy to see you for an appointment to talk about this more.

Yes and/or
Yes
Opt
Opt

Option 1

- Consider a short-term nicotine replacement therapy (NRT) testing prior to referral and advise that this is one measure for you both to monitor success.
- Ensure that the service you refer to offers both behavioural and pharmacological interventions and that staff are trained and updated.
- Assure the patient that you will prescribe appropriate medicines if requested by the service for as long as is required. Reassure about the value and safety of these medicines.
- Hand out written materials/contact numbers to show your support.
- Make sure your referral happens: have a system to check. Ask for feedback from the service.
- Consider offering initial prescription of NRT patches.

It is important for primary care physicians to recognise SMI in patients in order to identify potential related comorbidity, because approximately 1 in 4 people with SMI who smoke may have undiagnosed COPD. Also, the prevalence of COPD is higher in patients with SMI and they may die up to 20 years earlier than the general population and are 3-5 times more likely to die from COPD. Unfortunately, COPD is also often missed in this patient group due to a later age of diagnosis.



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DESKTOP HELPER
No. 16 November 2023

Severe mental illness, tobacco dependence and chronic obstructive pulmonary disease (COPD)

About one in a hundred people cared for in primary care might suffer from severe mental illness.¹ The prevalence of tobacco dependence and risk of COPD alongside other non-communicable diseases such as heart disease and lung cancer are substantially higher in patients with SMI in primary care practices and mental health services compared to the general population, which forms both a huge health burden and a significant opportunity for improvement of COPD care. This desktop helper aims to assist general primary care teams and those in mental health services providing general medical care in assessing, diagnosing and treating patients with severe mental illness with tobacco dependence and COPD. This helper can be read in conjunction with our desktop helpers on Helping people quit and COPD and associated mental health problems.

SEVERE MENTAL ILLNESS AND PHYSICAL HEALTH INEQUALITIES

Severe mental illness (SMI) includes schizophrenia (SZ), bipolar disorder (BD) and affective disorder with psychosis.^{2,3} SMI causes serious functional impairment that limits life activities and is related to worse health outcomes compared to those without SMI. The diagnosis is based on the Diagnostic and Statistical Manual of Mental Disorders, 5th Edition (DSM-5), and is often made by secondary care specialists. One of the major causes of COPD continues to be tobacco smoking.⁴ There is a higher prevalence of tobacco smoking and regular exposure to other smoked drugs such as cannabis or heroin, which also may cause COPD/emphysema, in people living with SMI.

It is important for primary care physicians to recognise SMI in patients in order to identify potential related comorbidity, because approximately 1 in 4 people with SMI who smoke may have undiagnosed COPD. Also, the prevalence of COPD is higher in patients with SMI and they may die up to 20 years earlier than the general population and are 3-5 times more likely to die from COPD. Unfortunately, COPD is also often missed in this patient group due to a later age of diagnosis.

Recommended practical action for diagnosing and treating COPD in people with SMI

DIAGNOSIS

1. Take a smoking history to understand the risk from cumulative exposure to tobacco and other drugs.
2. Identify symptoms suggestive of COPD using simple clinical scales such as the MRC breathlessness scale, combined with observation where necessary.⁵
3. Be aware that this patient group may be less likely to report and identify symptoms such as breathlessness and may be hesitant without reporting breathlessness. This is why it is useful to use clinical measures of breathlessness.
4. There is a low threshold for performing a lung function test through an respiratory physician, or a lung function test is not available, use a portable spirometer which may be easier and indicate a diagnosis of COPD.⁶
5. There is one to a patient consider because patients with SMI may report fewer symptoms / be less aware that they are unwell, take action on low readings. The COPD phenotype in patients with significant smoking drug history may be more that of emphysema with relatively preserved spirometry and delay in blood oxygen saturation on exertion.⁷
6. The person may have other reasons for low blood oxygen saturation, both including obesity. Therefore, measure BMI because obesity is a common comorbidity of SMI.⁸

INTERVENTION

7. Explain what COPD is - "...smoker's lung" and then use an evidence-based non-judgmental approach to offering treatment for tobacco dependence as the first treatment (see Helping people quit desktop helper) and have for more detailed information on first-line pharmacotherapy for treating tobacco dependence.
8. If possible, measure CO levels as this may also aid in motivating the smoker to quit.⁹
9. In people with COPD explain about and offer vaccinations. Recommended vaccines include flu, pneumococcal and COVID-19, as well as Tdap (pertussis, tetanus and diphtheria) if not vaccinated in adulthood, and shingles.¹⁰
10. Work with the mental health team who knows the patient on a shared agenda to ensure access to treatment for their tobacco dependence, vaccination and to enable those patients reporting breathlessness to attend pulmonary rehabilitation (see our desktop helper on PR to help explain it, as well as our video on how we breathe, and the Breathing Thinking Functioning model explained in our desktop helper).
11. Cost is a significant factor that prevents patients from using these helpful interventions. Help

Helping patients quit tobacco: Very Brief Advice (VBA)

An easy, positive and effective way to help tobacco users quit:

Ask, Advise & Act¹

VBA works at any point during a consultation about another health matter. VBA is proven to increase the chances of an individual making a quit attempt. It is a trigger; its effectiveness increases if more clinicians use it more of the time: the readiness of the patient to respond is variable therefore if we increase the chance of them encountering a VBA trained clinician, we are more likely to catch a ready patient on the right day.

1. ASK: during a consultation about another health matter

Ask ALL patients about tobacco use (smoking or smokeless tobacco) at every clinical contact. Document tobacco/smoking status because this makes it easier for colleagues in your health system to ask the question next time, especially if you have a shared record with patients and colleagues. IT DOES NOT NEED ANY ASSESSMENT OF READINESS TO QUIT

**"Have you used tobacco at all in the last year?" OR
"I can see from your records that you have used tobacco recently. Is that still the case?"**

2. ADVISE: about effective ways to quit (and if necessary, about the harms of tobacco)

In most IPCRG member countries public health programmes use the media to communicate the harm caused and so the population usually knows that the use of tobacco is harmful. Where it is well understood that tobacco causes harm then advising this again can be counter-productive and not seen by the patient as a supportive position. However, the impact on awareness across a population can vary. Therefore base your advice on what you understand your patient and your local population's awareness to be and personalise a clear strong message. If your Public Health system has been effective in raising the TENSION around tobacco then your role is to enact the TRIGGER. Give your advice on quitting with a positive and supportive tone and with a sense of hope.

"Do you know the best way of stopping using tobacco or reducing its harm? We know from research studies that the best way of stopping using tobacco is through the use of stop tobacco medicines combined with regular help, support and encouragement, especially in the first 4 weeks and ideally for 3 months of an attempt"

3. ACT: according to the patient's response and available behavioural support and first line quit tobacco medication¹

You will now need to ACT. The best way to stop tobacco is with the combination of behavioural support from a trained clinician and the use of a first line quit tobacco medication. At the optimal end of the scale, IPCRG member countries have many modalities of nicotine replacement therapy and a number of anti-nicotine receptor medicines that are available free for patients as part of a national health system. These countries will also have a trained stop tobacco workforce that can provide 20-30 minute appointments for the behavioural support element of the intervention. We have also worked with countries where stop tobacco medicines are not available at all or only available to purchase privately and where there is no programme of stop tobacco specialists. We illustrate these scenarios below. Refer to the most appropriate.

"Would you like to talk about the options available to help with your tobacco use today?"

No: That's OK. Could I ask your permission to talk about this again next time we meet in case you have changed your mind? If you do reconsider before then I would be happy to see you for an appointment to talk about this more.

Yes: That's great, here are some of the options that are open to you now: (tailor each to your situation eg you may not yet have a CO monitor)
Option 1 – Well developed stop tobacco service and free medicines
Option 2 – No/limited stop tobacco service and some free medicines
Option 3 – No/limited stop tobacco service and private only medicines

Option 1

- Consider exhaled carbon monoxide (CO) testing prior to referral and advise that this is one measure for you both to monitor success.
- Ensure that the service you refer to offers both behavioural and pharmacotherapy interventions and that staff are trained and updated.
- Assure the patient that you will prescribe appropriate medicines if requested by the service for as long as is required. Reassure about the value and safety of these medicines.
- Hand out written material/contact numbers to show your support.
- Make sure your referral happens: have a system to check: Ask for feedback from the service.
- Consider offering initial prescription of NRT patches.

Option 2 & 3 (See section 4)

- Consider exhaled carbon monoxide (CO) (if available) testing before starting treatment. Advise that this is one measure for you both to monitor success.
- Ensure that in addition to VBA, you or a colleague within your organisation has been trained and updated to provide brief behavioural and pharmacotherapy interventions for tobacco (that is, more than VBA which is very brief and may include motivational interviewing (MI)).
- Explore with the patient the options for over the counter (OTC) or prescribed free and private medicines. Reassure about the value and safety of these medicines.
- Explain that they will have greater success if they see a health professional as well as taking medicines. Taking stop tobacco medicines OTC without support is no more effective than an unassisted quit and could be a waste of money for your patient.
- Hand out any written material/contact numbers to enhance the support you have offered.

¹ we have used "tobacco" rather than "smoking". If, in your context it is better to use "smoking" please adapt.

The evidence-based VBA, Ask-Advise-Act, is intended to be used by all healthcare practitioners and works best when there is a nationally-funded stop tobacco service that includes free pharmacotherapy. Identified people who wish to quit or reduce harm are best managed in evidence-based services where practitioners are formally trained and regularly updated. However, globally such an offer is not always available and individuals and organisations will need to agree a treatment plan for people who receive VBA and declare a desire to quit in the absence of a comprehensive national service.

We explain why we advocate 3As not 5As in our position paper. However, this does not preclude the family practitioner with a long-term relationship with the tobacco user and family from supporting the individual with other behaviour change techniques to help treat their dependency.

VBA is intended to serve as the minimal treatment that should be delivered to all patients. More involved quit tobacco interventions which support behaviour change techniques are intended to be delivered by the specialist tobacco cessation service or, when not available, by GPs who have been trained in evidence-based tobacco treatment and can work with the person long-term as part of their long-term condition management. Tobacco dependency is a long-term relapsing remitting condition and therefore needs an intervention from a clinician.

Motivational Interviewing (MI) is effective in treating people with tobacco dependence. You may have had training in the principles of MI as part of primary care training. These principles can be effectively and easily applied by a range of clinicians in the treatment of tobacco dependence. A Cochrane systematic review with moderate quality evidence supports particularly the GP in delivering this intervention. It can be done, and is preferable to be done, in less than 20 minutes. This is therefore likely to be a significant treatment option in those countries where pharmacotherapy and stop tobacco specialists are not available.

More than VBA: when you have a dedicated appointment

Brief advice, prescribing and motivational interviewing work best when you have dedicated time as you would for a blood pressure or diabetes appointment.

It is ideal if the quit tobacco intervention below is delivered in a session dedicated to helping the patient with their tobacco use. However, we also acknowledge that many 2 minute episodes over a life course can also have a positive impact. If you are providing the service, you may be able to develop a standard schedule such as a package of 5 consultations. If so, "frontload" the consultations with more early on.

Start with the Visual Analogue Scale (VAS) for motivational interviewing

On a scale from 1 – 10

- How important is it to you to stop tobacco where 0 is not at all important and 10 is the most important it can be?
- On a score of 0 – 10 where 0 is not confident at all and 10 is totally confident, how confident are you to try and stop tobacco?

1	2	3	4	5	6	7	8	9	10
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Dialogues: Select from these and adapt to your own style and rapport with the patient. More listening than talking!

Green dialogue

"That's great to hear. Why is it a 9 for confidence not a 7?" LISTEN to reply as way to hear patient beliefs; which often include stopping without help. "It sounds like you really want to try stopping tobacco (again). May I talk you through the options that are available for us to help you (building on what worked for you last time)?"

Amber dialogue

"Can you tell me why is it a 6 and not a 4?" LISTEN to reply; and celebrate previous quitting success, which is what is often the reason given, although perceived by the patient as failure because they have then relapsed. Reflect back "It sounds like this has been really hard for you in the past but even so you succeeded for x time. What would need to happen to move this up to an 8?" Listen to reply then ask permission "May I talk you through some of the options we now have available that we know work for patients like you, where tobacco is a big part of their lives, so that you can see whether you think any of them might be of interest to you?"

Red dialogue

"It sounds like tobacco is a really important part of your life. That makes me want to know why you've scored it as a 3 and not a 1?" LISTEN to reply and name and affirm all positives. Reflect back "It sounds like this has been really hard for you in the past and you still feel it's not the right time for you to stop tobacco. We know that nicotine is more addictive than heroin.... even so you succeeded before for x time." "What would need to happen to move this up to a 4 or 5?" Listen to reply then ask permission "I am hearing this does not feel the right time for you to stop tobacco and I completely respect this. However, we also saw that your CO level was very high, x, and we know this is making your condition (eg breathlessness/COPD/asthma) worse. If it would be helpful, I am happy to talk with you about what we could offer in the future, that we know works for patients like you, where tobacco has been and continues to be a major part of their lives, so you at least you know that we do have treatments that work."

The themes used in MI conversations are more listening than talking, using open-ended questions, specifically naming and affirming previous success, communicating hope especially for a long-term condition so strongly associated with shame, reflecting back and summarising. A few other things that work include:

- Name and clarify that the team is not judgemental about tobacco "We know how hard this is and that this is an addiction and that nicotine is more addictive than heroin..."
- Open-ended questions eg "Tell me about when you tried to stop tobacco before?"
- Exhaled CO testing is a very powerful motivator because the numerical reading improves quickly after cessation and is an objective measure
- Encourage the person to imagine and communicate what they think might be the benefits of quitting; reflect back and summarise and tailor your offer to their reply.
- You will know the patient's comorbidities so consider how treating their tobacco use can improve the other disease outcomes that they want eg "Did you know you... will get fewer asthma attacks? your wounds will heal better after surgery?" Keep it positive.
- However, most patients who use tobacco know this – listen for the people who matter to them eg being around for grandchildren growing up.
- Explore and then reflect on ambivalent feelings: "What are the things you like and don't like about your tobacco use?" "On the one hand you say that ...and on the other..."
- You may use these scales more than once in the consultation, or in subsequent conversations and if the scores increase, this will improve motivation.

If you are in the situation of options 2 or 3, where you will provide the counselling and medication advice then are some key actions you will want to take:

- Provide assistance in developing a quit plan – how often will you see them; how long will the session be, and what is the duration of the treatment. A 12 week intensive treatment is recommended if varenicline is prescribed, but ongoing support may be needed for much longer.
- Agree with the patient how you will review them to prevent relapse and provide support over subsequent months and years.
- Could you use email, text or phone for some of these sessions?
- Help them to set a quit date – make it realistic; a date chosen by the patient that you can then support.
- Know what pharmacotherapy is available OTC, free and private. Your best options are varenicline and combination NRT. Ensure doses are adequate.
- People quitting tobacco are often under-dosed on nicotine. Treat dosing, use and technique as seriously as you would for blood pressure or diabetes mellitus control.
- Include the following as needed:
 - Discuss abstinence and suggest coping strategies
 - Encourage social support
 - Assist in dealing with barriers such as fear of failure, stress coping, weight gain, social pressure
 - Give nutritional advice: sleep well, avoid caffeine and alcohol
 - Physical activity may help
- Withdrawal symptoms occur mostly during the first 2 weeks and are less troublesome after 4-7 weeks

DESKTOP HELPER

No. 16 November 2023

Severe mental illness, tobacco dependence and chronic obstructive pulmonary disease (COPD)

About one in a hundred people cared for in primary care might suffer from severe mental illness.¹ The prevalence of tobacco dependence and risk of COPD alongside other non-communicable diseases such as heart disease and lung cancer are substantially higher in patients with SMI in primary care practices and mental health services compared to the general population, which forms both a huge health burden and a significant opportunity for improvement of COPD care.

This desktop helper aims to assist general primary care teams and those in mental health services providing general medical care in assessing, diagnosing and treating patients with severe mental illness with tobacco dependence and COPD. This helper can be read in conjunction with our desktop helpers on [Helping people quit and COPD and associated mental health problems](#).

SEVERE MENTAL ILLNESS AND PHYSICAL HEALTH INEQUALITIES

Severe mental illness (SMI) includes schizophrenia (SZ), bipolar disorder (BD) and affective disorder with psychosis.²⁻⁵ SMI causes serious functional impairment that limits life activities and is related to worse health outcomes compared to those without SMI. The diagnosis is based on the Diagnostic and Statistical Manual of Mental Disorders, 5th Edition (DSM-5), and is often made by secondary care psychiatrists. One of the major causes of COPD continues to be tobacco smoking.⁶ There is a higher prevalence of tobacco smoking and regular exposure to other smoked drugs such as cannabis or heroin, which also may cause COPD/emphysema, in people living with SMI.

It is important for primary care physicians to recognize SMI in patients in order to identify potential related comorbidity, because approximately 1 in 4 people with SMI who smoke may have undiagnosed COPD.² Also, the prevalence of COPD is higher in patients with SMI and they may die up to 20 years earlier than the general population and are 3-9 times more likely to die from COPD.⁷ Unfortunately, COPD is also often missed in this patient group due to a later age of diagnosis compared to concurrent SMI (their early twenties compared to early forties, respectively⁸) and underreporting or minimisation of symptoms. Regular lung function testing throughout life is therefore warranted in people with SMI who are tobacco dependent.

Therefore, there is a substantial opportunity to make measurable improvements in health outcomes and equity by diagnosing and treating COPD in people with SMI specifically by focusing on diagnosing and treating their tobacco dependence.

Recommended practical action for diagnosing and treating COPD in people with SMI

DIAGNOSIS

1. Take a smoking history to understand the risk from cumulative exposure to tobacco and other drugs.
2. Identify symptoms suggestive of COPD using simple clinical scales such as the MRC breathlessness scale, combined with observation where necessary.¹⁹
3. Be aware that this patient group may be less likely to report and identify symptoms such as breathlessness and may be hypoxic without reporting breathlessness. This is why it is useful to use clinical measures of breathlessness.
4. Have a low threshold for performing a lung function test through an expiratory spirometry, or if a lung function test is not at hand, use a portable micro-spirometer which may be easier and indicate a diagnosis of COPD.²⁰
5. Have and use a pulse oximeter because patients with SMI may report fewer symptoms / be less aware that they are unwell, take action on low readings. The COPD phenotype in patients with significant smoked drug history may be more that of emphysema with relatively preserved spirometry and drop in blood oxygen saturations on exertion.²¹
6. The person may have other reasons for low blood oxygen saturation levels including obesity. Therefore, measure BMI because obesity is a common comorbidity of SMI.²²

INTERVENTION

7. Explain what COPD is 'smoker's lung' and then use an evidence-based non-judgmental approach to offering treatment for tobacco dependence as the key treatment [see Helping people quit desktop helper and here for more detailed information on first-line pharmacotherapy for treating tobacco dependence].
8. If possible, measure CO-levels as this may also aid in motivating the smoker to quit.²³
9. In people with COPD explain about and offer vaccinations. Recommended vaccines include flu, pneumococcal and COVID-19, as well as Tdap (pertussis, tetanus and diphtheria) if not vaccinated in adolescence, and shingles.⁶
10. Work with the mental health team who knows the patient on a shared agenda to ensure access to treatment for their tobacco dependence, vaccination and to enable those patients reporting breathlessness to attend pulmonary rehabilitation (see our desktop helper on PR to help explain it, as well as our video on how we breathe, and the Breathing Thinking Functioning model explained in our desktop helper).
11. Cost is a significant factor that prevents patients from using these helpful interventions. Help improve access to these for free, either by signposting to a free service or advocating for your health service to provide this.
12. When collaborating with the mental health team on treating tobacco dependence, it may be helpful to address any potential myths about smoking within mental health services. Educating mental health professionals and addressing unhelpful views such as "smoking is the only pleasure our patients have", "smoking helps to reduce patients' agitation", "we shouldn't be telling patients what to do", "banning smoking in inpatient settings is against patients' human rights" is important because these views have all been demonstrated to be clinically and legally incorrect.
13. Do not start inhalers without a full respiratory assessment, or without a diagnosis – if new breathlessness is reported, order a chest X-ray as there could be other causes including lung cancer/heart failure.
14. Include deaths in people with serious mental illness under the age of 75 in reviews of adverse incidents to learn more as an integrated system about missed opportunities to preserve and extend life.

TOBACCO AND SMI

Smoking tobacco is the main preventable risk factor for premature mortality in people with SMI and remains a serious problem. Despite a downward trend in global smoking prevalence,²⁻⁴ people with SMI continue to smoke up to three times more than the general population and overall tend to be more nicotine dependent. Historically, they are less likely to be diagnosed with tobacco dependence and/or offered treatment and consequently have a higher risk of morbidity and mortality.^{2-4,8} Left untreated, this may lead to premature death and avoidable morbidity.⁹⁻¹¹ This creates a significant opportunity to improve health outcomes and equity.

Given that two out of three people in the general population who smoke will die from smoking-related causes, this presents a significant opportunity.^{12,13-14} In patients with SMI, it is sensible to prioritise tobacco dependence assessment and treating the dependence.¹⁵ Studies demonstrate that people with SMI who smoke are motivated to quit, which is achievable with evidence-based approaches but these are often not offered or affordable out of pocket.¹⁶ Yet people with SMI who smoke and manage to quit show statistically improved health outcomes compared to before cessation.^{17,18}

MAIN TREATMENTS

The main cessation drugs approved by the WHO, namely varenicline, bupropion and nicotine replacement therapy, are all safe to use in people with SMI. [Click here](#) for the Helping people quit desktop helper for a more detailed stepwise approach and [here](#) for more information on the pharmacotherapy discussed below.

Varenicline

Varenicline is a licensed medication that acts as a dual agonist and antagonist at the nicotinic receptor in the brain. It reduces withdrawal and reduces the dopamine reward effects of smoking. Note there are currently supply issues in some countries. Check the local situation and availability of generic varenicline as this drug can prove to be of great value for this patient population. It is advised to offer NRT with it to provide the additional nicotine during the escalation phase of varenicline.

Cytisine

Cytisine is a partial agonist of the nicotine receptor, similar to varenicline. It has a strong evidence base including randomised controlled trials and meta-analyses confirming its efficacy against placebo, non-inferiority (and probably superiority) to NRT and non-inferiority to varenicline. It is now licensed in a number of countries. It is a 25-day course starting at 6 tablets per day and reducing through the course to two tablets. It is naturally occurring, derived from plants, and consequently attractive to

Tips for effective communication on tobacco dependence with patients with SMI

Consider taking a motivational approach, e.g. with OARS questions and explain the Breathing-Thinking-Functioning model to guide your conversation. Read more about this model and non-pharmacological interventions in the [IPCRG COPD and mental health desktop helper](#).

Ask about tobacco use

- Do you smoke tobacco or use other tobacco products? [no, yes, given up – how long ago – more than 3 months = ex-smoker, under 3 months = current smoker]
- How many cigarettes per day? [note 1 pack = 20 cigarettes smoked daily for one year; pack years = years of smoking x packs 1 pack = 20 cigs]

Advise about the harms and what support is available

- Tobacco is really addictive – more addictive than heroin, but we can help you come off it.
- If you smoke, you are likely to get COPD/emphysema/smokers' lung, which is very harmful for your health and life.
- If you stop smoking it will improve your mental health: it leads to reduced depression, anxiety and stress and improved mood and quality of life.⁴
- It may help you reduce the dosage of anti-psychotic medication.²⁴ Smoking decreases the effects of antipsychotic (and other psychiatric) medications, such as clozapine, olanzapine and risperidone. Because of this, your doctor might have to increase your medication dose to ensure that you are getting the recommended amount of medication. Quitting may lead to your doctor prescribing less medication with the same results.²⁴
- You'll have more cash to spend on other things, and you are more likely to earn a higher income.²⁵
- You are likely to live longer and you have a better chance to avoid lung and other cancers.
- Smoking heroin, cocaine or cannabis can also cause emphysema; quitting tobacco smoking can increase your confidence to quit smoking these substances too and increase your success in staying away from all substances.²⁶
- The other things we can do to help your health are to give you a flu vaccination, and if you have COPD, a vaccination against pneumonia too.

These tips can be helpful if the person wants help

- Withdrawal can make you feel bad, so it's important we treat your withdrawal and prevent cravings.
- Be aware you may have mood swings, have poor concentration or feel irritable as the nicotine withdrawals from your body. These will stop; ask family and friends to look out for you and do not worry: these are not new mental health problems, merely adverse effects of quitting smoking.
- Nicotine replacement therapy (NRT) patches can help you deal with the withdrawal symptoms [see Helping people quit desktop helper].
- Nicotine inhalers or vaping can also help with the "hit" your body craves ["urge"] [see table 2].
- Varenicline is a 12-week treatment with tablets to help you quit smoking recommended by the World Health Organization. You start taking varenicline when you are still smoking and will set a date to quit smoking approximately 1-2 weeks after starting treatment with varenicline [see *].
- Cytisine is a 25-day treatment to help you quit smoking. You start taking 6 tablets the first week and gradually reduce the dose. You will notice that your anxiety may rapidly decrease.

If they are interested in making a quit attempt in the future

- It may not be the right time for you to come off it now, but we will ask you when we next see you too.

* There is extensive experience with varenicline. Yet the use and uptake of varenicline is relatively low in mental health services. This is partly due to clinicians' lack of knowledge/expertise but may also relate to the early concerns raised regarding the potential of varenicline to increase suicidality in SMI, which have since been disproven.²⁸ Unfortunately, in 2023, there are supply problems with varenicline worldwide, so check with your HCP if varenicline is a feasible therapy to help you quit smoking or whether there is an alternative.

patients who would prefer a 'natural' product. It is not yet on the WHO Essential Medicines List but in the absence of varenicline, it is an important option.

Nicotine replacement therapy (NRT)

NRT is to avoid relapse to smoking, prescribe both long (patch)- and short (gum, inhalator, spray)-acting to support withdrawal and address the urge to smoke. In case of poor dentition, which is not

uncommon in people with SMI, gum can be inappropriate and NRT via inhalator or mouth spray should be considered.

For a detailed guideline for first-line pharmacotherapy for treating tobacco dependence please refer to the [First line pharmacotherapy for smoking cessation table.2](#)

Bupropion

Please refer to your local guidelines for prescribing bupropion as in some countries

Table 1: Therapeutic approaches to smoking cessation

Intervention	Number in a 100 likely to quit	Difference compared to no intervention	Strength of evidence
Unassisted	6		High
Varenicline	14 [range 12-16]	8 [range 6-10]	High
Cytisine	13 [10-18]	7 [4-12]	High
Combination NRT patch and fast acting NRT	Estimated as similar to cytisine and varenicline	Estimated as similar to cytisine and varenicline	Estimate
Nicotine patch	8 [7-9]	2 [1-3]	High
Fast acting NRT	9 [8-9]	3 [2-3]	High
Nicotine EC	13 [10-19]	8 [4-13]	High
Bupropion	9 [8-10]	3 [2-4]	High
Nicotine tapering	7 [6-8]	1 [0-2]	Low

Adapted from Lindson N, et al. Pharmacological and electronic cigarette interventions for smoking cessation in adults. Cochrane, 2023²⁷

Table 2: Coping with symptoms of withdrawal

Symptoms	What's happening	How to cope
Intense desire to smoke	Brain missing the nicotine fix	Remember this will pass in a few weeks
Coughing	Lungs are clearing of tar	Will improve quickly, warm drinks can help
Hunger	Metabolism is changing, food tastes better since quitting	Eat fruit and vegetables, chew sugarfree gum and drink lots of water
Constipation and diarrhoea	Body returning to normal (will settle down)	Drink lots of water, eat fresh fruit and vegetables, exercise. If persistent: try over the counter products or see HCP
Trouble sleeping	Due to nicotine leaving the body	Lasts about 2-3 weeks, cut down on tea/coffee, get more fresh air and exercise
Dizziness	More oxygen to the brain, less carbon monoxide	Will pass in a few days
Mood swings, poor concentration, irritability	Signs of nicotine withdrawal (will pass)	Warn family and friends, ask for support.

For more information please refer to [Helping people quit desktop helper](#)

this is not a first line of treatment anymore. For some countries, bupropion is still considered standard-of-care for helping people quit tobacco smoking, but prescribers should be aware of the additional monitoring that is required by the HCP.

Nicotine electronic cigarettes (e-cigs)

E-cigs are likely to help people with SMI quit smoking and are usually used for a period of approximately six months. These may work better than NRT, non-nicotine e-cigarettes, no support or only behavioural support. However, they are not risk free. More studies are needed to provide clear evidence of their effects.^{9,20}

Behavioural support

Behavioural support through motivational interviewing and cognitive behavioural therapy (CBT) are commonly used in people with SMI. CBT combined with pharmacotherapy is more effective than just CBT.^{5,28,30-33}

Drug interactions between tobacco and SMI medication

Tobacco use has an impact on the metabolism of other antipsychotic medications such as clozapine, olanzapine and risperidone, which may affect the doses needed to reach therapeutic blood levels and subsequently their effectiveness. However, while it is important to consider and address possible drug interactions the

main message is to treat the tobacco dependence. People using some antipsychotic medications who quit tobacco smoking may also be able to reduce their dosage.²⁴ Modify the dosage of clozapine if the patient stops smoking.³⁴

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People with COPD deserve...

- 2. A primary care service that is competent and confident in **diagnosing** COPD including timely, accurate and objective tests, and
- Information about COPD, its causes, the likely timeline, how it can be **managed** but not cured, and the consequences of decisions about treatment and self-management.



Quick guide to spirometry

This desktop helper aims to provide primary care professionals with the information they need to prepare for and interpret spirometry and understand its role and limitations in the diagnosis and monitoring of respiratory disease.

INTRODUCTION

Spirometry is an objective test that measures the volume of air a person can exhale and the speed (flow) at which they can do so.^{1,4} It is mandatory in diagnosing and monitoring chronic obstructive pulmonary disease (COPD), and important for asthma, idiopathic pulmonary fibrosis and chronic cough. Spirometry is also helpful in the evaluation of the impact of some systemic diseases on the respiratory system and helps in determining personal risk before surgical intervention.

WHAT DO WE NEED TO DO?

Before the test

When performing spirometry, consider potential contraindications (Table 1).

This test is highly dependent on the person's collaboration and the testing circumstances, therefore, the procedure should be explained beforehand and a decision made by the prescribing physician if the person should stop taking any respiratory medications prior to the test (see Table 2 for minimum timings). It may not be necessary to withhold medication if the purpose of the test is to determine whether the person's lung function can be improved with therapy in addition to their regular treatment.

Instruct the person not to smoke, vape or use a water pipe and abstain from any strenuous physical exercise for at least one hour prior to the test, or to consume intoxicants up to 8 hours before the test. Ask them to loosen any tight clothing. Spirometry must be conducted in a comfortable and well-ventilated room (ideally, specific for spirometry), with the person sitting on a chair without arms, wheels or height adjustment. There must be scales, a stadiometer and a basic weather station (if not already integrated with the test equipment). The spirometer should have a maximum error range of $\pm 2.5\%$ when tested with a 3L calibration syringe.

Preparing the person for spirometry

Not all people will be able to produce good

Table 1: Contraindications for spirometry.

Any situation that puts the person's health at serious risk when making a significant effort such as:	Situations in which min quality manoeuvres can be achieved:
<ul style="list-style-type: none">Significant haemoptysisActive or recent pneumothorax. Having a pneumothorax in the past does not contraindicate spirometryUnstable CV disease (e.g. angina, recent MI, PTE)Brain, thoracic or abdominal aneurysmsRecent retinal detachment or recent eye surgery (e.g. cataract)Recent chest or abdominal surgery	<ul style="list-style-type: none">Inability to undertake unwillingness to followNot understanding (e.g. children under deterioration, some)Poor physical statePresence of a tracheostomy considered necessary on a person with a tracheostomy should be referred to a specialistOral and/or facial problems (e.g. facial trauma, facial surgery)Uncomfortable nose mouthpiece

CV, cardiovascular; MI, myocardial infarction; PTE, pulmonary thromboembolism.

Table 2: Minimum time between taking certain drugs and undergoing spirometry.

Drug	Minimum allowable at
Salmeterol, terbutaline, ipratropium	
Formoterol, salmeterol	
Indacaterol, olodaterol, vilanterol	
Acetylcholinesterase inhibitors	
Tiotropium, glycopyrronium, umecidilum	
Short-acting theophyllines	
Sustained-release theophyllines	
Chromones	

quality spirometries, but the operator's competence can improve the quality of the results.

- Input the person's data including age, height and sex at birth into the spirometer.
- Ask them to remove any dental prostheses if they are likely to move.
- Seat them in a chair without arms, wheels or height adjustment with their back against its backrest and both feet flat on the ground, uncrossed. Advise

them to sit up forwardly while breathing into the mouthpiece. Explain the procedure straightforwardly. Follow my instructions. Inhale deeply on an on to the mouth tightly sealed as the way then blow hard as you can until your lungs are flat on the ground, uncrossed. Advise



Achieving earlier diagnosis of COPD

This desktop helper reviews the evidence for the benefits of earlier detection and diagnosis of COPD and provides healthcare practitioners (HCPs) with tools they can use to achieve this for the patients in their care.

WHY DOES EARLIER DIAGNOSIS MATTER?

COPD is a common global condition with considerable morbidity and mortality.¹ Underdiagnosis of COPD is a persistent problem worldwide and continues to be a major reason for the undertreatment of the condition despite the availability of effective non-pharmacotherapeutic and pharmacotherapeutic interventions.² The global prevalence of COPD is estimated to be 10.3%.² The rates of underdiagnosis in low and middle-income countries may be particularly high, with some estimates suggesting underdiagnosis rates in excess of 90%.³

Undiagnosed, symptomatic COPD is associated with an increased risk for exacerbations, pneumonia, a marked detrimental impact on quality of life (QoL), and even premature death.^{1,4-6} COPD

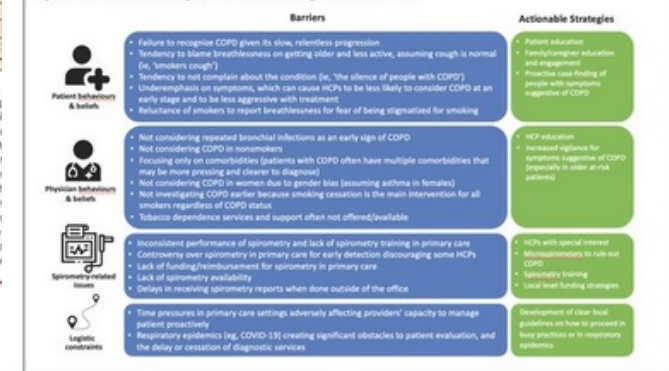
diagnosis usually occurs only after significant lung function has already been lost. By the time people seek help for their symptoms, their FEV₁ has often fallen to <50% of predicted, a level at which health status is substantially reduced. In addition, other consequences of COPD such as breathlessness, depression and anxiety, often cause people to be less active and less able to cope with the disease.¹ The reasons for delayed diagnosis of COPD are numerous and complex including personal, HCP and system-level factors that prevent the reporting, recognition or identification of symptoms suggestive of COPD, or the availability of spirometry, essential to diagnose COPD (see the IPCRG Quick guide to spirometry at: <https://www.ipcr.org/DT114>).⁷ It has been considered by some practitioners and public as a self-inflicted disease if the person has smoked tobacco and this has led to stigma, self-blame and

care-seeking delays. This underappreciates the fact that tobacco use is a chronic dependency that often begins in childhood and is itself often underdiagnosed and undertreated. In addition, new scientific evidence has shown that there are many genetic and environmental factors associated with reduced lung function, that vary, accumulate, and interact over time, even before birth.^{2,7}

CAN EARLIER INTERVENTION HELP?

Earlier intervention for symptomatic COPD can result in better quality of life (QoL).¹ A wide body of research indicates that earlier diagnosis accompanied by earlier intervention delays lung function decline, reduces symptoms burden and improves QoL.⁷ To reduce the risk of exacerbations caused by respiratory infections ensure your patients receive vaccinations (i.e.

Figure 1: Barriers to earlier diagnosis in COPD and strategies to overcome them.



Spirometry Simplified 1st run

Certified e-learning course (includes in-person masterclass)

What is it?

Spirometry Simplified is a IPCRG flagship initiative that aims to build capacity and spread the equitable use of Spirometry among primary care clinicians across the globe through research, education, and advocacy, to enhance earlier and accurate diagnosis of patients with obstructive airway diseases and thereby improve their quality of care.

The **Spirometry Simplified** course is being developed by leading experts in respiratory health and is a certified course that will train primary health care professionals and their assistants to prepare for, perform, evaluate and interpret high-quality spirometry.

How does it work?

- > Instruction language: English
- > 5 modules (4 online, 1 in person)
- > Primary care oriented
- > Self-paced flexible learning
- > Includes practical case studies
- > Certified by IPCRG
- > Taught by experts from all regions of the globe

Who is this course for?

- > General Practitioners
- > Nurses
- > Physiotherapists
- > Community Paediatricians (who offer primary care to children)
- > Pharmacy teams
- > Physicians (Internists, Pulmonologists, Paediatricians),
- > Other health care professionals with tertiary level education on respiratory anatomy and physiology

Course structure

- Module 1 Understanding Spirometry
- Module 2 Preparing Spirometry
- Module 3 Evaluating Spirometry
- Module 4 Interpreting Spirometry
- Masterclass Performing Spirometry

Course duration

Online: 9 hours

Masterclass: 3 hours @ IPCRG 12th World Conference, May 2024 (Athens)

Learning objectives

By the end of this course, learners will be able to:

- > Understand the fundamentals of spirometry
- > Prepare for a spirometry test
- > Conduct a spirometry test
- > Perform spirometry quality assurance and quality control task
- > Evaluate the validity of the spirometry test result
- > Interpret the spirometry test result
- > Record and report the spirometry test result
- > Manage spirometry data / refer as needed
- > Set up a Spirometry Clinic

Faculty

Sundee Salvi [course director], Director of Chest Research Foundation, India

Enrique Cimas Hernando, Coordinador del Centro de Salud de Contruences (Gijón), Spain

Ioanna Tsiligianni, Associate professor, Faculty of Medicine, University of Crete, Greece

Kerry Hancock, Education Coordinator Spirometry Learning Australia, Australia

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Course structure



exclusively online in Moodle (4 weeks)

in person

Module 1 Understanding Spirometry	Module 2 Preparing Spirometry	Module 3 Evaluating Spirometry	Module 4 Interpreting Spirometry	Practical workshop Performing Spirometry
1.5 hours online	1.5 hours online	1.5 hours online	1.5 hours online	3 hours in person
1.1 Respiratory anatomy and physiology relevant to spirometry	2.1 Key measurements of spirometry and methods for measuring results	3.1 Evaluating the correctness of subject data entry, choice of reference values and ethnic correction	4.1 Interpreting and grading the spirometry test result	5.1 Performing a linearity calibration check
1.2 Fundamentals of spirometry	2.2 Preparation for a spirometry test	3.2 Evaluating the test for acceptability, usability and repeatability, grade the test quality	4.2 Recording, reporting and keeping spirometry records	5.2 Performing a spirometry test
1.3 Setting up a Spirometry Clinic: Importance of Quality assurance & quality control	2.3 Performing a spirometry test	3.3 Evaluating the numerical results for best test and best trial in preparation for interpretation		5.3 Evaluating, recording and reporting the spirometry test result
	2.4 Conducting a spirometry bronchodilator			

Figure 1: Barriers to earlier diagnosis in COPD and strategies to overcome them.

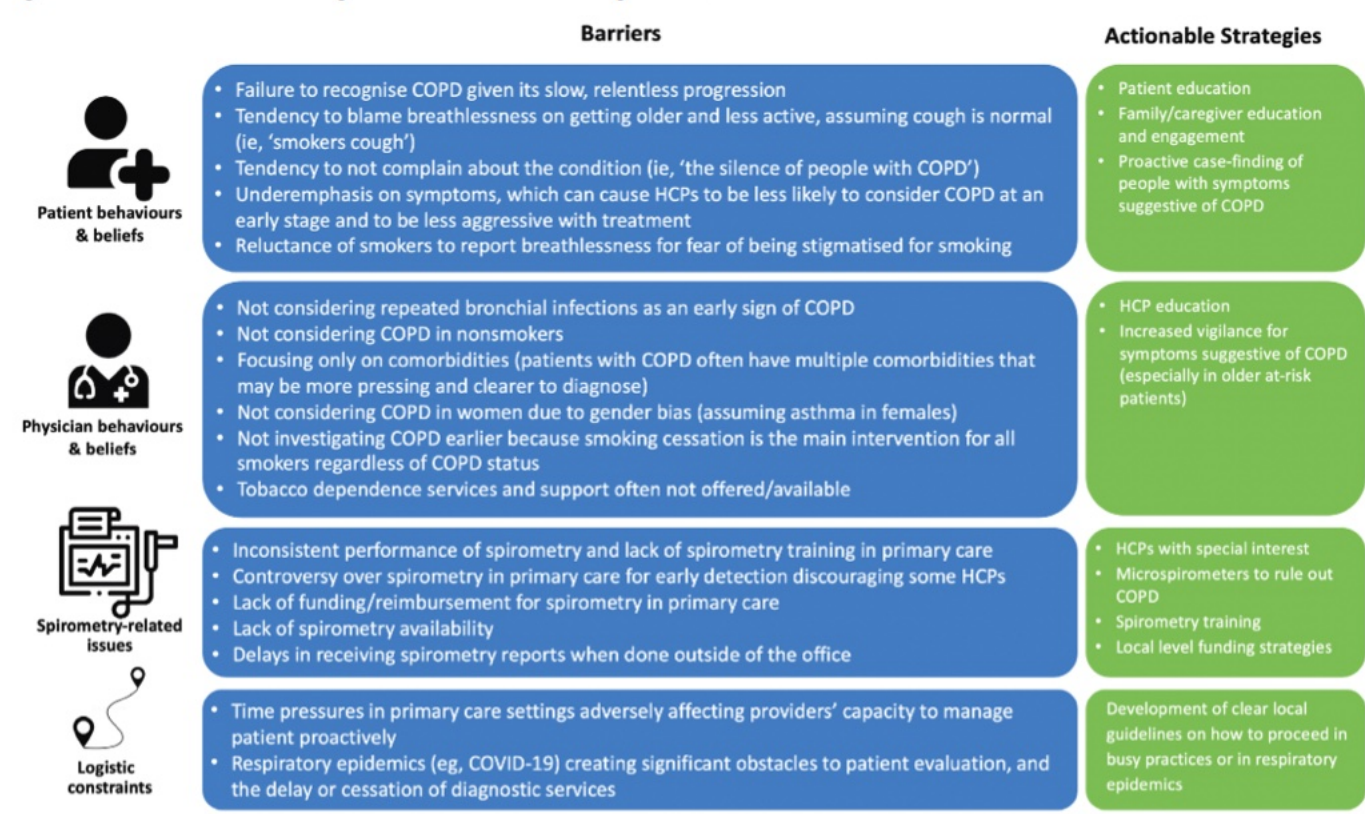


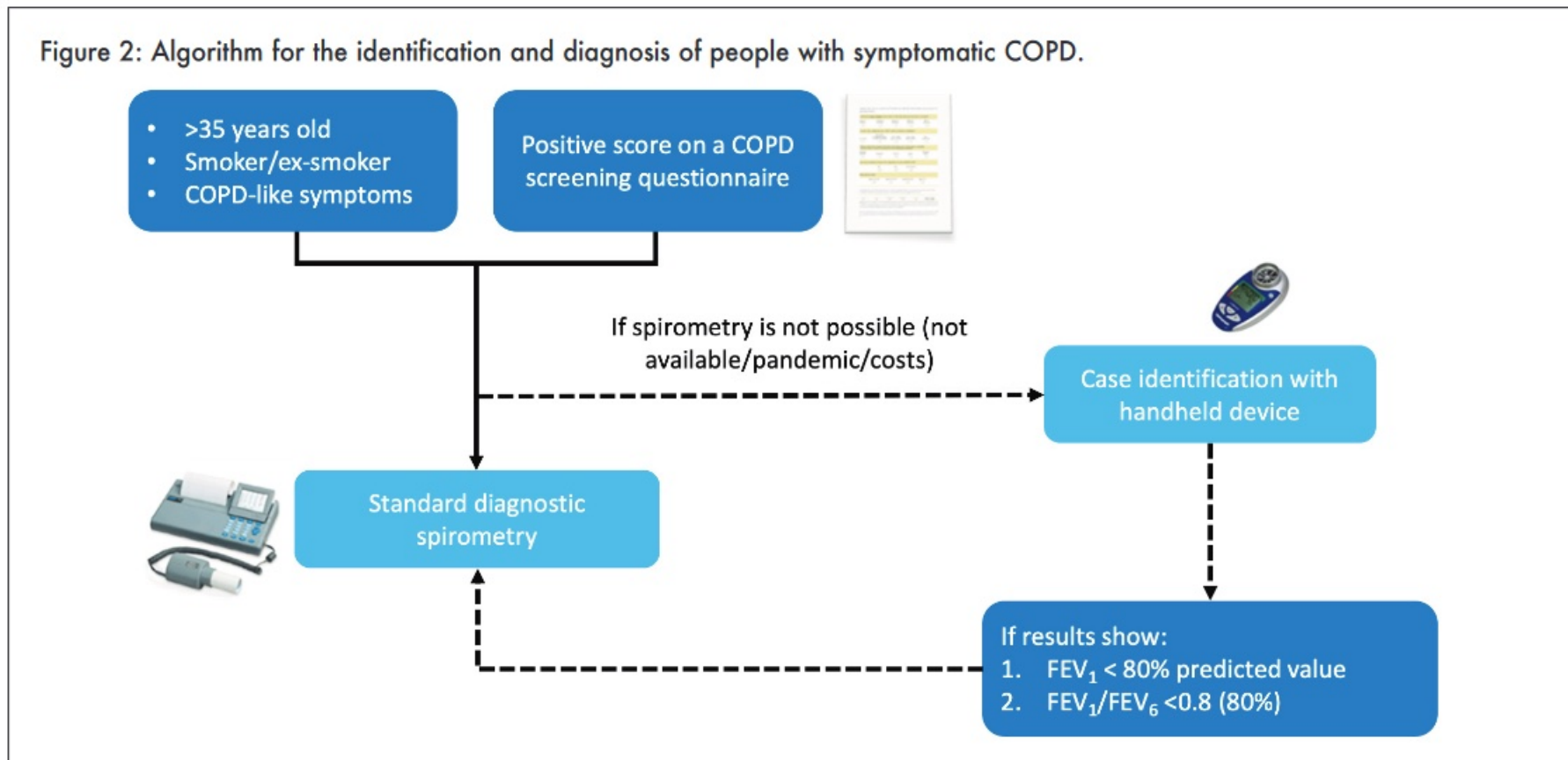
Table 1: Examples of tools for identifying people with symptoms suggestive of COPD in primary care settings who should be considered for spirometry

Tool	Comments	Web address
Canada Lung Health Test ²⁶	Simple and quick to administer; not validated. 5 questions	https://www.lungsask.ca/media/16
COPD Population Screener (COPD-PS) ²⁷	Internationally recognised and validated. Simple and quick to administer, 5 questions + age	https://www.copdfoundation.org/Screener.aspx
COPD Assessment in Primary Care To Identify Undiagnosed Respiratory Disease Risk (CAPTURE) ²⁸	Validated and includes measurement of PEF. Good discriminatory capacity in LMIC settings. ²⁸ Low sensitivity for detecting clinically significant COPD in a US primary care population. ²⁹	https://www.researchgate.net/figure/The-CaPTure-COPD-assessment-in-primary-care-to-identify-undiagnosed-respiratory-disease_fig1_325741206
COPD in LMICs (COLA) ³⁰	Validated and good discriminatory capacity in LMIC settings; ²⁸ can be used alongside PEF ³¹	https://www.dovepress.com/a-novel-case-finding-instrument-for-chronic-obstructive-pulmonary-dise-peer-reviewed-fulltext-article-COPD

LMIC, low- and middle-income countries; PEF, peak expiratory flow.

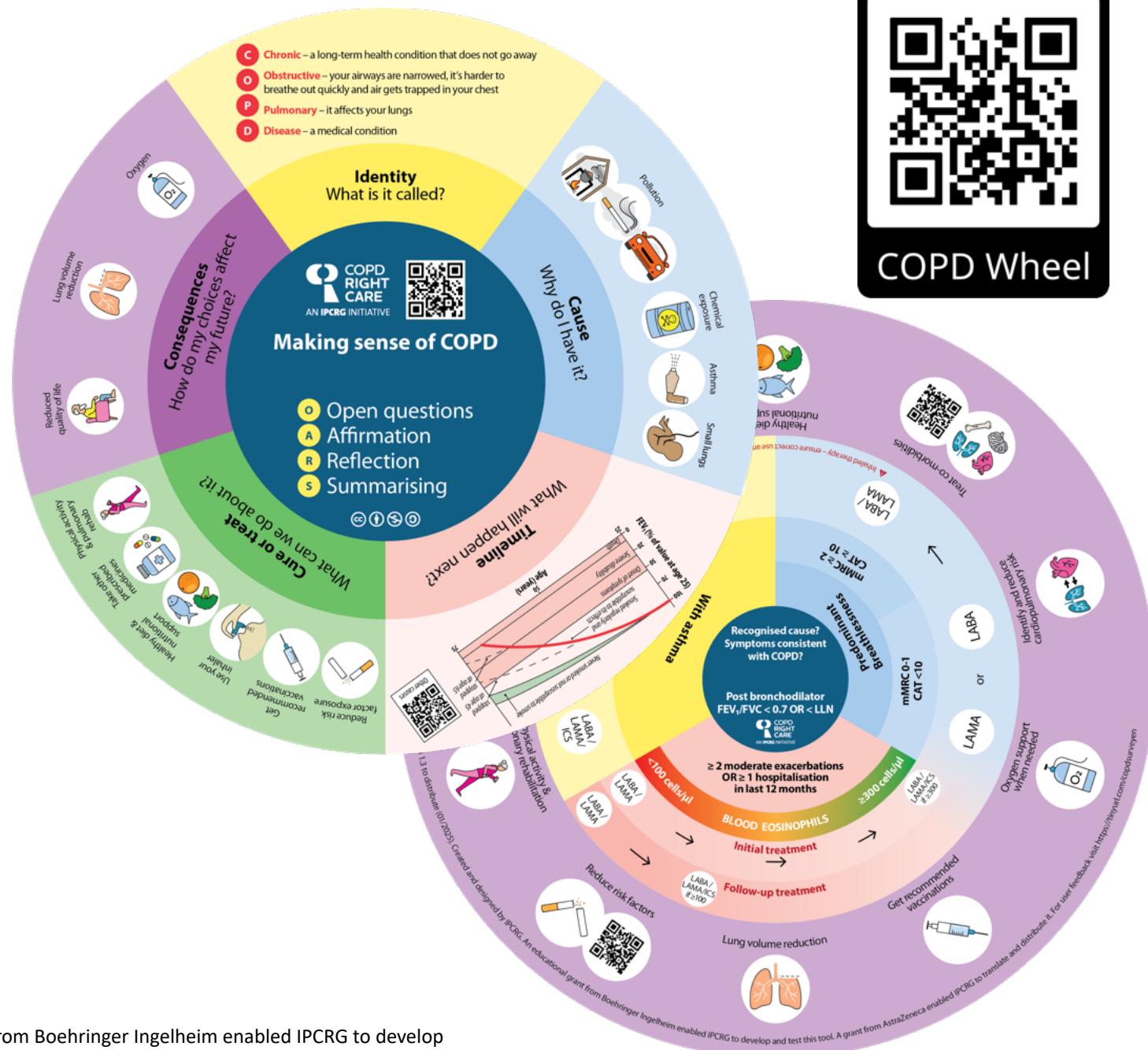
Identification and diagnosis of people with symptomatic COPD

Figure 2: Algorithm for the identification and diagnosis of people with symptomatic COPD.



COPD Wheel

- Start new conversations about personalising care for people with COPD
- Patient side - answers key patient questions (What is it called, why do I have it, what will happen next, what can I do about it, how do my choices affect my future?)
- Prescriber side - diagnosis, phenotypes, pharmacological and non-pharmacological interventions



Dissemination

- Physical dissemination (approx 2700 copies distributed in 11 countries)
- Gamified versions
- Video demonstrations produced by IPCRG
- Promotional films (Brazil and Portugal)
- Interactive online version in planning stages



COPD Wheel: hard copy distribution during pilot



- Wheel available in English, Greek, Spanish, Portuguese and Brazilian Portuguese
- Promotional postcard produced and translated
- Printing guide with instructions for assembly and estimated cost
- Interactive digital version to be created and embedded on IPCRG website
- Harmonised social media messages
- Incorporated into teaching slides

UK

- Featured and distributed at PCRS 2023 conference - 100 copies handed out at stand and 300 sent out by email request from delegates
- Approximately 500 distributed by IPCRG at 2023 Scientific Meeting and our stands at WONCA World, PCRS, ERS and WONCA Europe
- Approximately 400 distributed by IPCRG at 2024 World Conference in Athens

USA

- Online campaign by COPD Foundation - featured in May and November newsletters. In both newsletters, wheel item received more attention than other items - 8000 clicks between the two.
- Social media campaign
- COPD Foundation to create short informal reel
- Download link in COPD Foundation website linking to COPD Right Care

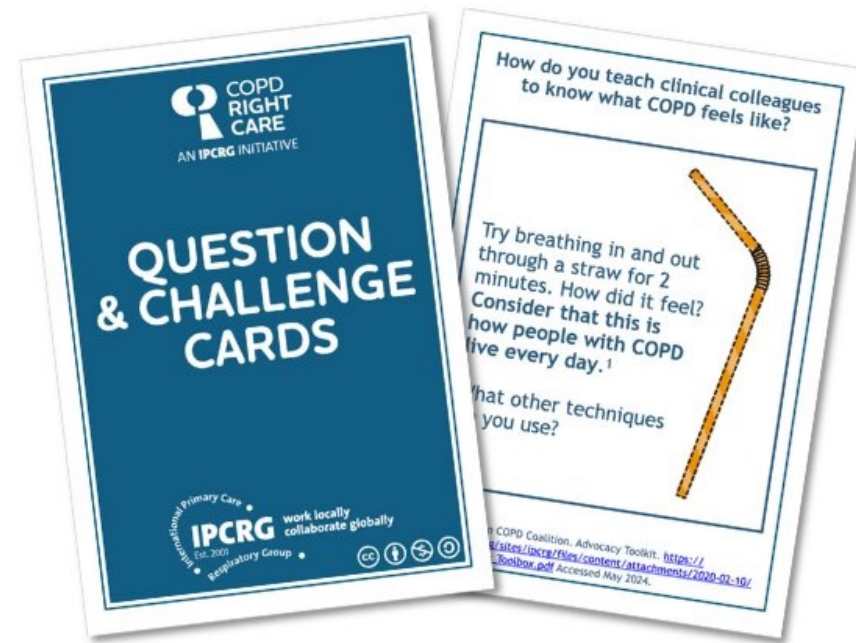
Event	Country	Number distributed
Posted by request to UK primary care	UK	456
IPCRG Scientific Meeting 2023	Germany	100
GRESF Congress 2023	Portugal	100
WONCA World 2023	Australia	100
PCRS 2023	UK	100
ERS 2023	Italy	100
Wonca Europe 2023	Belgium	50
State Congress of Pharmacists 2023	Brazil	500
IPCRG World Conference 2024	Greece	250
IPCRG World Conference 2024	Greece	150
GRAP 2024 Scientific Meeting (April 2024)	Spain	200
WONCA Europe 2024	Ireland	25
ERS 2024	Austria	25
PCRS 2024	UK	50
IPCRG Scientific Meeting 2025	Romania	120

COPD Question & Challenge Cards

These cards can be used to start conversations between clinical peers, with people with lived experience and with students about COPD by offering information and asking provocative questions to create more awareness of shortcomings in knowledge and understanding about COPD in the following areas:

- COPD conversation starters
- The importance of bronchodilation in treating COPD
- The importance of correct inhaler technique and adherence
- Who benefits from inhaled corticosteroids (ICS)
- Differential diagnosis of asthma & COPD

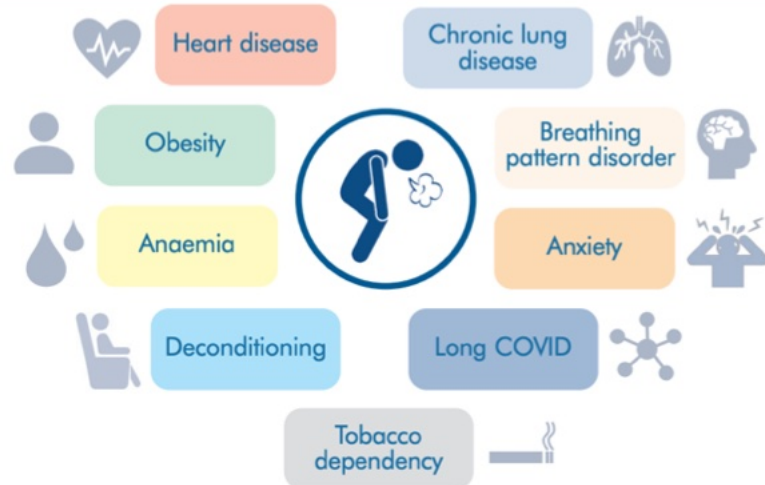
Each card has a question, answer and reference (s).





Which diseases should be considered in a differential diagnosis of COPD?

Breathlessness, a main symptom of COPD, can also be caused by conditions such as: asthma, congestive heart failure, bronchiectasis, tuberculosis, obliterative bronchitis, diffuse panbronchiolitis, lung cancer, interstitial lung diseases, thyroid problems.^{1,2}



1.GOLD. Global strategy for prevention, diagnosis and management of COPD. Available at: <https://goldcopd.org/>. Accessed May 2024.

2.IPCRG. Desktop Helper No.17. Available at: <https://www.ipcr.org/dth17>. Accessed May 2024.

What tests can be performed to diagnose someone with COPD?

Spirometry measures airflow in and out of the lungs. The key measures are the volume of air a person can exhale and the speed (flow) at which they do so. It is mandatory for diagnosing and monitoring COPD and its progression.

If you are treating someone with COPD who was not diagnosed with spirometry, organise spirometry for them now.¹

1.IPCRG. Desktop Helper No.14. Available at: <https://www.ipcr.org/dth14>. Accessed May 2024.

What does good quality COPD care look like?

IPCRG is regularly asked by primary care clinicians to define good quality care. We take the view that primary care is person-centred, and therefore the best way to define quality is from the perspective of the person at risk of, or with the condition. From our regular conversations with expert patients and clinicians *we have summarised what good quality care should look like from a patient perspective and how can clinicians provide that in 10 person-centred statements*. These are divided into five areas: Prevention, Diagnosis and communication about the diagnosis, Management, Review and Referral. Our vision is that clinical teams will use them to benchmark their practice and potentially identify an area for improvement. Our own programme of work is steered by these statements. We are currently defining the competencies required to deliver them and the teaching methods and tools to enable delivery.

IPCRG tools that we already offer are listed in blue italics.*

People with exposure to risk factors for COPD deserve...

Prevention

- 1 Information, advice on mitigation and public health protection including local and personal risk factors. *<https://www.ipcrq.org/howwebreathe> and [helping people quit](#).*

People with COPD deserve...

Diagnosis and communication about the diagnosis

- 2 A primary care service that is competent and confident in diagnosing COPD including timely, accurate and objective tests, and information about COPD, its causes, the likely timeline, how it can be managed but not cured, and the consequences of decisions about treatment and self-management. *[Desktop helper 14 \(spirometry\)](#), [desktop helper on earlier diagnosis](#), [COPD Right Care wheel](#).*

Management

- 3 A primary care team competent to classify the stage and type of their link to disease over time using spirometry, quality of life and exacerbation history and competent to assess other morbidities.
- 4 Long term holistic management according to the guidelines including vaccination, counselling and treatment if they are tobacco dependent, pharmacological and non-pharmacological treatment and referral eg to pulmonary rehabilitation, end of life care. *[Desktop helpers 3 \(supportive & palliative approach\)](#), [4 \(quit smoking\)](#), [6 \(ICS and ICS withdrawal\)](#), [7 \(pulmonary rehabilitation\)](#), [8 \(women & COPD\)](#), [10 \(multi-morbidity\)](#) and [12 \(mental health\)](#), www.ipcrq.org/copdwheel*
- 5 To be offered appropriate inhaler(s) according to their physical and cognitive abilities and characteristics and appropriate inhaler technique training by a primary care professional who knows the importance of eosinophil count and that bronchodilation is the basis of treatment. eg www.rightbreathe.com
- 6 Yearly flu vaccination, pneumococcal, Tdap, herpes zoster and COVID-19 vaccinations according to their history and national schedule.
- 7 To agree an individualised self-management plan including recognition of exacerbations, smoking cessation, breathing exercises, nutrition, and physical activity taking into consideration mental and physical health, health literacy and access to care. *www.ipcrq.org/copdmagazine*
- 8 To be asked in a culturally appropriate way about exacerbations, to receive reassurance and appropriate treatment and to be followed up to ensure they have adequate support.

Review

- 9 A structured assessment of their symptoms, wellbeing, inhalation technique, future risk and support needs at acceptable intervals with additional follow-up after an exacerbation or a change in management. *[Desktop helper 3](#).*

When their COPD cannot be managed in their usual primary care

- 10 To have easy and timely access/referral to a primary or secondary health care professional who is skillful in COPD management whenever their COPD cannot be managed in their usual primary care.



People with COPD deserve...

A primary care team competent to classify the stage and type of their link to disease over time using spirometry, quality of life and exacerbation history and competent to assess other morbidities.

*Interactive version available with hyperlinks. Scan the QR code.





What are the most common comorbidities of people with COPD in your setting? List as many as you can.

The most common comorbidities are:

Tobacco dependence, cardiovascular diseases, muscle weakness, osteoporosis, anxiety, depression, lung cancer, metabolic syndrome, diabetes, gastroesophageal reflux, bronchiectasis, obstructive sleep apnoea

How might these affect your treatment decisions?

Visit [ipcr.org/dth10](https://www.ipcr.org/dth10) (Desktop Helper & associated case studies) to learn more about rational use of medicines.¹



1. IPCRG. Desktop Helper No. 10. Available at: <https://www.ipcr.org/dth10>. Accessed May 2024.

Name some comorbidities that must be considered with caution when starting ICS treatment.

Pre-diabetes and diabetes, osteoporosis, bronchiectasis, pneumonia, mycobacterial infections, tobacco dependence.^{1,2}

1. IPCRG Desktop Helper No. 10. Available at: www.ipcr.org/dth10. Accessed May 2024.
2. Miravittles M et al. Eur Respir Rev 2021; 30(160): 210075.

Modified MRC Dyspnea Scale

Table 2.7

PLEASE TICK IN THE BOX THAT APPLIES TO YOU | ONE BOX ONLY | Grades 0 - 4

mMRC Grade 0	mMRC Grade 1	mMRC Grade 2	mMRC Grade 3	mMRC Grade 4
I only get breathless with strenuous exercise	I get short of breath when hurrying on the level or walking up a slight hill	I walk slower than people of the same age on the level because of breathlessness, or I have to stop for breath when walking on my own pace on the level	I stop for breath after walking about 100 meters or after a few minutes on the level	I am too breathless to leave the house or I am breathless when dressing or undressing
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Reference: ATS (1982) Am Rev Respir Dis. Nov;126(5):952-6.



CAT™ Assessment

Figure 2.2

For each item below, place a mark (x) in the box that best describes you currently.
Be sure to only select one response for each question.

EXAMPLE: I am very happy	0 <input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5	I am very sad	Score
I never cough	0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5	I cough all the time	
I have no phlegm (mucus) in my chest at all	0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5	My chest is completely full of phlegm (mucus)	
My chest does not feel tight at all	0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5	My chest feels very tight	
When I walk up a hill or one flight of stairs I am not breathless	0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5	When I walk up a hill or one flight of stairs I am very breathless	
I am not limited doing any activities at home	0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5	I am very limited doing activities at home	
I am confident leaving my home despite my lung condition	0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5	I am not at all confident leaving my home because of my lung condition	
I sleep soundly	0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5	I don't sleep soundly because of my lung condition	
I have lots of energy	0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5	I have no energy at all	

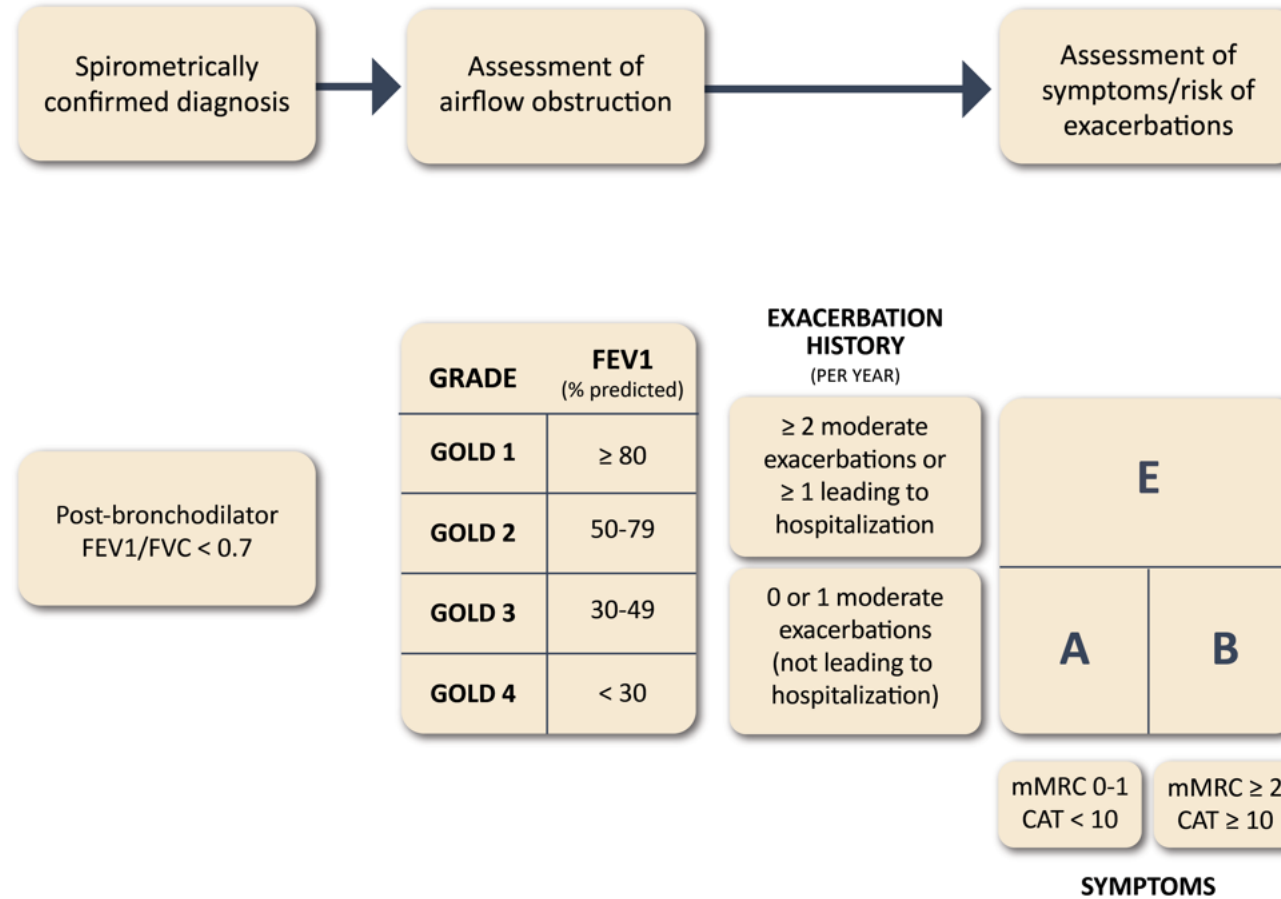
Reference: Jones et al. ERJ 2009; 34 (3); 648-54.

TOTAL SCORE:



GOLD ABE Assessment Tool

Figure 2.3



What does good quality COPD care look like?

IPCRG is regularly asked by primary care clinicians to define good quality care. We take the view that primary care is person-centred, and therefore the best way to define quality is from the perspective of the person at risk of, or with the condition. From our regular conversations with expert patients and clinicians **we have summarised what good quality care should look like from a patient perspective and how can clinicians provide that in 10 person-centred statements.** These are divided into five areas: Prevention, Diagnosis and communication about the diagnosis, Management, Review and Referral. Our vision is that clinical teams will use them to benchmark their practice and potentially identify an area for improvement. Our own programme of work is steered by these statements. We are currently defining the competencies required to deliver them and the teaching methods and tools to enable delivery.

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- 9 A structured assessment of their symptoms, wellbeing, inhalation technique, future risk and support needs at acceptable intervals with additional follow-up after an exacerbation or a change in management. *Desktop helper 3.*

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*Interactive version available with hyperlinks. Scan the QR code.



Oct 2023

People with COPD deserve...

Long term holistic management according to the guidelines including vaccination, counselling and treatment if they are tobacco dependent, pharmacological and non-pharmacological treatment and referral eg to pulmonary rehabilitation, end of life care.



DESKTOP HELPER

No. 3 April 2022

Improving the life of people with COPD by integrating a supportive and palliative approach from diagnosis to end of life

This desktop helper supports a long-term holistic approach to chronic obstructive pulmonary disease (COPD) management. The course and prognosis of COPD can be difficult to predict. Care is directed towards enhancing the quality of life of the individual and their family, slowing progression, reducing symptoms and preventing exacerbations, which is why palliative approaches are useful from the time the COPD diagnosis is communicated. It is important to remember that 'palliative' is a broad term for approaches that address individual needs across the spectrum of COPD.

INTRODUCTION

People live with COPD from years to decades, experiencing a lower quality of life (QoL), and greater functional limitations, anxiety and depression than others who are the same age without COPD. These potentially significant changes in QoL and expectations from 'I' may be improved with enhanced care highlighting the need for a long-term or holistic approach to support people with COPD, their family and caregivers. Co selection is based on repeated disease during the working prognosis and symptom trajectory, identifying and minimising distressing symptoms and ensuring medical, physical, social and spiritual support. It may include supporting access to support and financial care packages from social and other non-medical services. From beginning to end, COPD must be treated using all available appropriate therapies 1 COPD AND the expression of morbidities such as cardiovascular disease (CVD), depression, anxiety, diabetes, renal disease, lung cancer and osteoporosis. Treatment must be based on appropriate evaluations and knowledge the patient's functional status and personal goals at each stage of COPD stabilisation or progression (e.g. evolved at least annual) Variations will depend on the local availability of healthcare and therapies, cultural norms and the individual's beliefs and goals.

IMPACT OF COPD

COPD is a chronic disease that impacts every aspect of life and is often diagnosed after months or years of people reducing or eliminating activities to lessen breathlessness or feelings of 'air hunger' or fatigue. For people living with COPD, breathlessness may be due to a combination of factors including common comorbidities such as heart disease or anxiety. COPD has evolved QoL, including social interest, mood, work, family life and self-care (Figure 1).²

Figure 1: The high burden of COPD. International survey of people with COPD receiving maintenance therapy (Table 1).

to open important discussions, people living with COPD remind us — "If you ask us questions then LISTEN to our answers" (Table 1).

Table 2 provides questions to guide discussion on long-term care to help you explore the broader aspects of care and



DESKTOP HELPER

No. 6 2nd edition May 2020

Appropriate use and withdrawal of inhaled corticosteroids (ICS) in patients with chronic obstructive pulmonary disease (COPD)

The purpose of this desktop helper for the appropriate use and withdrawal of inhaled corticosteroids (ICS) is to:

1. Help primary care clinicians identify patients with chronic obstructive pulmonary disease (COPD) who would benefit from ICS treatment compared to those in whom it may not be appropriate, and
2. Provide guidance on how to withdraw ICS in patients with COPD in whom it is not needed.

THE ROLE OF ICS IN THE TREATMENT OF PATIENTS WITH COPD

In COPD, evidence supports the use of an inhaled corticosteroid (ICS) in combination with a long acting beta-agonist (LABA) or as part of a triple therapy regimen with the addition of a long acting muscarinic

CURRENT RECOMMENDATIONS ON ICS USE FOR PATIENTS WITH COPD

For all patients with COPD, LABAs are recommended as first-line treatment. For patients whose disease is classified as GOLD 'D' (i.e. symptomatic with exacerbations) with a history of asthma or

IPCRG GUIDANCE ON WHEN TO BEGIN ICS IN PATIENTS WITH COPD

1. Consider ICS combined with bronchodilators as initial treatment in a recently diagnosed patient and/or a patient who is pharmacological treatment 'naïve' based on the history of asthma, risk of



DESKTOP HELPER No. 7 July 2017 Pulmonary Rehabilitation in the community

A Referrer's Guide: The essential things you need to know about pulmonary rehabilitation to help breathless people breathe better, feel good and do more!

nary Rehabilitation?

structured programme tailored to an individual's needs, improve their quality of life (QoL), and improve their exercise tolerance. It improves people's ability to live better with chronic disease and should be integrated into, their care. It can be delivered safely in the community to reduce the use of expensive care. It is proven clinical and cost-effective.^{1,2}

functionally limited by their management.

As COPD becomes breathless with tightening for them and their families avoid activities which make them feel breathless, demotivation and to communicate, even if difficult for and and healthcare professionals to

around is NORMAL." to feel short of breath whilst moving."

"That is an important decision, well done. I will now refer you..." either "...to the Pulmonary Rehabilitation programme" or "...to see an expert who can assess your breathlessness and decide on the right programme for you." or ACT: If they say no/not yet "It is your choice of course so let me know if you change your mind and I will ask again when we next meet. It is a great opportunity to meet others with a similar experience, to learn to control your breathlessness and to reduce the impact of your breathlessness on your life." Provide information and education about their condition and how they can best live with and manage their problems and medications e.g. [Living Well and IPCRG](http://www.livingwellandipcrq.org). This will be reinforced in the programme.

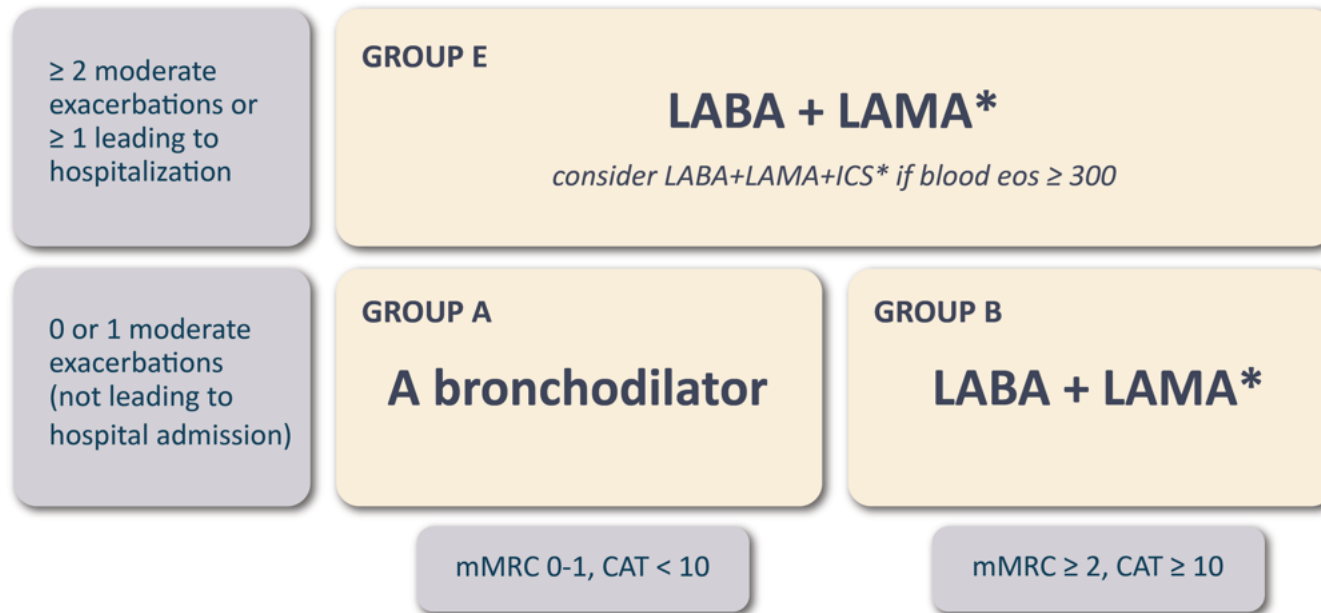
Your role in optimising use of PR: planning

Highlighted examples at www.ipcrq.org/PR As a referrer you can contribute to getting improved outcomes and programme efficiency because there can be obstacles:³

Diagnosis	GP referral	Assessment
Person is not diagnosed or receives wrong diagnosis	GP does not believe in or communicate to the person the importance & benefits of PR	Person does not present for their assessment
Maintenance	Ongoing Programme	Start of Programme
Person does not maintain activity after the	Person does not complete the	Person does not turn up to begin

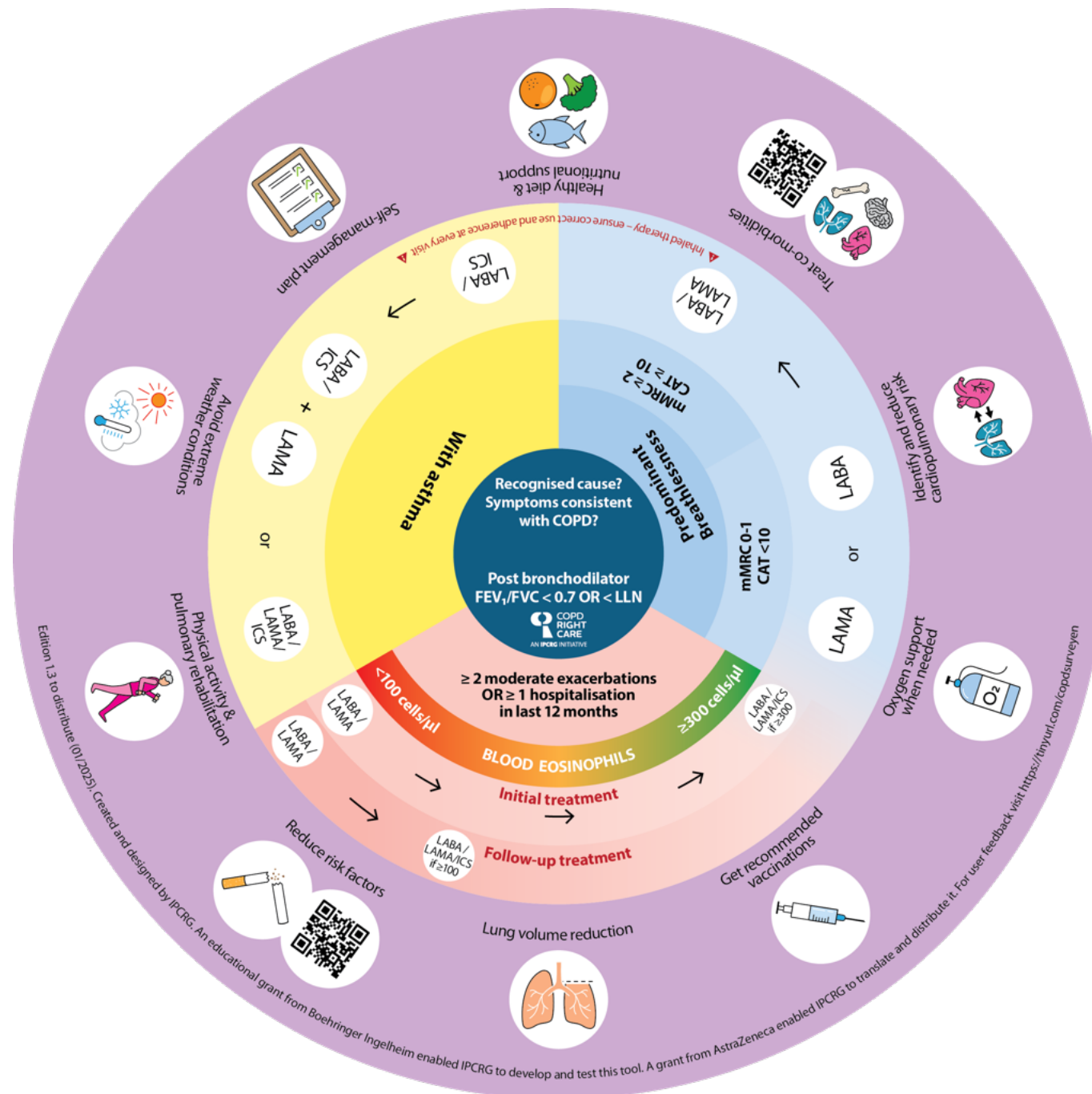
Initial Pharmacological Treatment

Figure 4.2



*single inhaler therapy may be more convenient and effective than multiple inhalers
Exacerbations refers to the number of exacerbations per year





ICS?



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2. Provide guidance on how to withdraw ICS in patients with COPD in whom it is not needed.

THE ROLE OF ICS IN THE TREATMENT OF PATIENTS WITH COPD

In COPD, evidence supports the use of an inhaled corticosteroid (ICS) in combination with a long acting beta-agonist (LABA) or as part of a triple therapy regimen with the addition of a long acting muscarinic antagonist (LAMA) to reduce the risk of symptomatic exacerbations.¹ The effect of these regimens (ICS/LABA/LAMA and ICS/LABA vs LABA/LAMA) is greater in patients with high exacerbation risk (≥2 exacerbations and/or 1 hospitalization in the previous year).²⁻⁴ However, until recently there has been no consistent evidence on the long-term effects of ICS on mortality or the group of patients who would benefit most.¹

Recent studies have shown that blood eosinophil counts predict the effect of ICS in preventing future exacerbations in COPD^{5,6} and they can be used as a biomarker to estimate the benefits of adding ICS to regular bronchodilator treatment for individual patients.¹

ADVERSE EFFECTS ASSOCIATED WITH ICS THERAPY

There is high quality evidence from randomized controlled trials (RCTs) that ICS use is associated with many adverse effects including oral candidiasis, hoarse voice, skin bruising and pneumonia and results of observational studies suggest that ICS treatment could also be associated with increased risk of diabetes/poor control of diabetes, cataracts, osteoporosis, fracture and mycobacterial infection including tuberculosis.¹

CURRENT RECOMMENDATIONS ON ICS USE FOR PATIENTS WITH COPD

For all patients with COPD, LABAs are recommended as first-line treatment. For patients whose disease is classified as GOLD 'D' (i.e. symptomatic with exacerbations) with a history of asthma or with blood eosinophil counts ≥300 cells/μL, initial therapy with LABA/ICS combination may be the first choice.¹ Patients with concomitant asthma should be treated with ICS combined with a LABA.⁹ After initial therapy, clinical response should be reviewed and adjustments made to pharmacological treatment, increasing or decreasing therapy, to obtain optimal symptom control. When patients with COPD are experiencing increased breathlessness and other symptoms, adjustment of therapy to ensure maximal bronchodilation is warranted. Current guidelines do not recommend ICS therapy if deterioration is driven by symptoms.¹

In COPD patients who continue to experience frequent exacerbations despite appropriate bronchodilator therapy and have blood eosinophils <100 μL⁻¹, ICS are not recommended unless the individual patient has a history of asthma; alternative treatments such as roflumilast and azithromycin can be considered.

In patients with blood eosinophils >300 μL⁻¹, the addition of ICS to LABA therapy is recommended. For patients with blood eosinophils of 100-300 μL⁻¹, careful consideration of the potential benefits and risks of ICS therapy should be undertaken.⁷

IPCRG GUIDANCE ON WHEN TO BEGIN ICS IN PATIENTS WITH COPD

1. Consider ICS combined with bronchodilators as initial treatment in a recently diagnosed patient and/or a patient who is pharmacological treatment "naïve" based on the history of asthma, risk of exacerbation, and eosinophils as shown in Table 1.
2. Consider ICS after reassessment of patients with COPD not previously treated with ICS based on risk of exacerbations and eosinophils as shown in Table 1.

In both cases, optimal bronchodilation is critical.

CURRENT USE OF ICS FOR PATIENTS WITH COPD

Despite recent recommendations that ICS use should be reserved for a small proportion of patients with COPD, there is evidence of continued inappropriate use of ICS in these patients. Guidelines implementation has been inconsistent as evidenced by numerous studies showing inappropriate prescription or over-prescription of ICS by up to 50%, a situation that has also been shown in the IPCRG UNLOCK study.⁸

EVIDENCE FOR ICS WITHDRAWAL IN PATIENTS WITH COPD

Updated COPD guidelines support ICS withdrawal¹⁰ and recent studies indicate ICS can be withdrawn in both low- and high-risk patients, provided adequate bronchodilator therapy is in place.^{9,17}

TABLE 1. IPCRG GUIDANCE ON WHEN TO BEGIN ICS IN PATIENTS WITH COPD. FIRST OPTIMISE BRONCHODILATION.

1. Initial treatment	<ol style="list-style-type: none"> a. Well documented previous history of asthma, especially if diagnosis under 40 years' old b. ≥2 moderate exacerbations or 1 hospitalization in the previous year and >300 eosinophils μL⁻¹
2. Reassessment†	<ol style="list-style-type: none"> a. ≥2 moderate exacerbations or 1 hospitalization in the previous year* and >300 eosinophils μL⁻¹* b. ≥2 moderate exacerbations or 1 hospitalization in the previous year* and eosinophils μL⁻¹ >100 but <300 after carefully balanced risk-benefit considering: <ul style="list-style-type: none"> o Recent pneumonia o Confirmed bacterial colonization o Bronchiectasis o Comorbidities, especially diabetes and osteoporosis or those at risk for these conditions
<p>† Patient not previously on ICS * Or since previous assessment if less than 12 months</p>	

Multimorbidity

Additional essential action points

1. Increase awareness of COPD multimorbidity and screen and monitor patients for the most common comorbidities
2. Ensure at least yearly patient (re)assessment and treatment adjustment in the primary care setting, including stopping of inappropriate medication. Don't forget lung cancer.
3. Review inhalation technique and adherence to medication
4. Empower multimorbid patients with COPD and caregivers to help them cope with potentially overwhelming amounts of information and associated depression and anxiety
5. Carefully evaluate the indication before initiating ICS treatment. With regard to ongoing ICS treatment, consider
 - o Asthma: ICS treatment must be continued
 - o Diabetes: reconsider if ICS treatment is needed; if ICS is continued, close follow up, glucose monitoring and titration of antidiabetic treatment are required
 - o Osteoporosis: reconsider if ICS treatment is needed; if ICS is continued, close follow up for loss of bone mineral density and risk of fractures is required. Screening for osteopenia or osteoporosis is recommended in patients receiving high dose of ICS or low to medium dose ICS with frequent use of oral corticosteroids
 - o Infections (pneumonia or tuberculosis): consider withdrawal of ICS and maximize bronchodilation
6. Closely monitor for cardiac rhythm disorders, including atrial fibrillation, when initiating patients on a LABA
7. Monitor for emergent urinary symptoms when initiating patients with chronic kidney or prostate disease on LAMA



DESKTOP HELPER

No. 10 December 2019

Rational Use of Inhaled Medications for the Patient with COPD and Multiple Comorbid Conditions: Guidance for Primary Care

This desktop helper describes the challenges associated with the pharmacological management of the patient with COPD and multiple comorbid conditions with a particular focus on the rational use of inhaled corticosteroids and provides guidance for the holistic care of such patients in the primary care setting.

INTRODUCTION

Chronic obstructive pulmonary disease (COPD) is typically accompanied by multiple comorbid conditions. However, guidelines for the management of patients with COPD focus on the disease itself, providing little practical guidance on the routine management of comorbidities. Our objective is to review the impact of comorbidities on treatment choices for patients with COPD, especially with regard to the risks and benefits of inhaled medications including long-acting beta-agonists (LABA) and long-acting muscarinic antagonist (LAMA) and with a special focus on inhaled corticosteroids (ICS).

MULTIMORBIDITY IN COPD

Patients with COPD typically present with multiple comorbid conditions which require long-term management alongside their COPD.¹ An additional challenge is that concomitant conditions, such as asthma or bronchiectasis, may be overlooked because signs and symptoms may overlap with those associated with COPD. Over 85% of adult patients with COPD will have at least one comorbid condition of clinical relevance, half of them have three or more.^{1,2} The prevalence of comorbidities increases with worsening COPD severity in both men and women and women appear to have a greater susceptibility to asthma, osteoporosis, anxiety and depression but appear less likely to have cardiovascular disease than men.^{3,4}

Comorbidities often appear in clusters which suggests common risk factors (smoking and inactivity are risk factors for both COPD and lung cancer), shared underlying pathobiological mechanisms (accelerated ageing is associated with both

COPD and hypertension) and side effects of COPD treatment (development of diabetes).^{5,7}

MANAGING THE PATIENT WITH COPD

According to the latest recommendations of the Global Initiative for Chronic Obstructive Lung Disease (GOLD),⁸ bronchodilation remains the mainstay of treatment for patients with stable COPD. Patients should be initiated on single or dual long-acting bronchodilator therapy.⁹ ICS/LABA can be considered as an initial therapy for patients in GOLD D with blood eosinophil counts ≥ 300 cells/ μ L.⁸ However, as ICS treatment may be associated with an increased risk of pneumonia, a risk/benefit evaluation is warranted for individual patients and withdrawal of ICS must be considered in case of emergent pneumonia.

MANAGING THE MULTIMORBID PATIENT WITH COPD

The management of individual patients with COPD and multimorbidity is often complex requiring the simultaneous application of several disease-specific treatment guidelines. These guidelines are rarely aligned with regard to treatment recommendations⁹ therefore a holistic approach is of particular importance for patients with multimorbidity. We would encourage primary care physicians to undertake regular (at least annual) (re)assessment and treatment adjustment for patients with COPD. Emergence of multimorbidity should be regarded as a signal and call to action to undertake a review of COPD treatment with a focus on

the interface between symptoms of their comorbid diseases, treatment adherence and side effects of medication.

For patients with COPD, multimorbidity is associated with a high level of polypharmacy and an increased risk for adverse drug reactions and interactions as well as an increased risk of hospitalisation and premature death.^{1,3,10,14} Polypharmacy is of particular concern when drugs with potential for similar adverse reactions are combined.¹⁵

In general, multimorbidity should not delay or alter the treatment of COPD and comorbidities should be managed according to usual standards; attention should be directed to ensure treatment simplicity and to minimise polypharmacy.⁸

COMORBIDITIES OF SPECIAL INTEREST

The management of patients with COPD and multimorbid conditions requires a personalised approach. Primary care physicians should adopt systematic ways to monitor patients with COPD. The interface between symptoms of comorbid diseases and side effects of medication should also be considered with special attention paid to the following comorbidities:

- Asthma
- Osteoporosis/fractures
- Diabetes
- Pneumonia and tuberculosis
- Atrial fibrillation
- Chronic pain
- Chronic kidney disease
- Prostate disease
- Gastroesophageal reflux
- Anxiety and/or depression
- Obstructive sleep apnoea

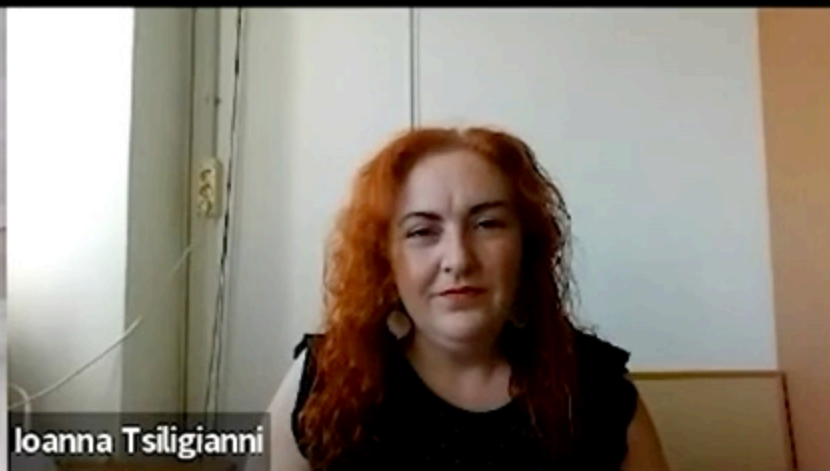
Multimorbidity

Treatment considerations for the multimorbid patient with COPD

Comorbidity	COPD treatment-associated risks		
	ICS	LABA	LAMA
Asthma	Recommended; LABA/ICS may be first line in patients with COPD and a history of asthma and asthma-COPD overlap		Recommended in selected patients
Pneumonia	Increased risk of pneumonia; consider withdrawal of ICS and maximize bronchodilation		
Osteoporosis/fractures	Increased bone loss and fracture risk; of particular concern in women		
Diabetes and pre-diabetes	Associated with onset and progression of diabetes, especially at higher doses		
Bronchiectasis	Not indicated in patients with bacterial colonization or recurrent lower RTI		
Tuberculosis	Increased risk for TB, particularly at high doses		
Chronic kidney disease			Associated with urinary symptoms
Prostate disease			Associated with urinary symptoms
Atrial fibrillation		Associated with tachycardia and rhythm disturbances (in susceptible patients)	
Glaucoma	Associated with glaucoma and cataracts		Associated with cataracts if used with face mask

COPD, chronic obstructive pulmonary disease; ICS, inhaled corticosteroid; LABA, long-acting beta-agonist; LAMA, long-acting muscarinic antagonist; RTI, respiratory tract infection; TB, tuberculosis.

■ Recommended
 ■ Use with caution
 ■ Use as per COPD guidelines



Women

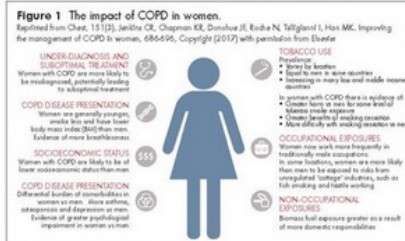


DESKTOP HELPER

No. 8 January 2018

Improving care for women with COPD: guidance for primary care

The scope of global primary care includes not only disease management, but also prevention and early risk identification, finding those people in the community who need special attention, diagnosis, treatment and management. One such challenge is to identify early, diagnose, and treat women with chronic obstructive pulmonary disease (COPD). The main challenges of COPD in women and the reasons that they need special attention, are depicted in Figure 1.¹



THE NEED FOR INCREASED AWARENESS OF COPD IN WOMEN

Prevention and early diagnosis strategies for women usually focus on early cancer detection, despite the fact that women are more likely to die from COPD than from breast and lung cancer combined.^{1,2} Until recently, COPD diagnosis in women has been neglected because it has been considered predominantly a disease of men.^{1,3} However, because of an increase in smoking and/or ongoing exposure to biomass smoke in many countries, COPD prevalence now seems to be similar between women and men. Indeed, data suggest that women could be at greater risk of smoking-induced lung function impairment, and could suffer from more severe symptoms for the same level of tobacco exposure than men.^{1,4} Nonsmokers with COPD are also more likely to be female. Women bear a disproportionate burden of exposure to risk factors such as biomass smoke, due to a

greater role in cooking and domestic responsibilities, occupational exposure in specific industries that generate smoke and dust, and from second-hand smoke.¹

WOMEN HAVE DIFFERENT PHENOTYPES AND SOCIOECONOMIC STATUS^{1,5}

Globally, women with COPD are usually younger, have a lower BMI, less firsthand tobacco smoke exposure, greater risk of significant lung impairment, more severe symptoms with the same level of exposure and a lower socioeconomic status (SES) which affects their access to care. They often disregard their symptoms and tend to be more reluctant to seek care, therefore diagnosis is delayed and they often have more severe disease by the time they are identified. Therefore, we need to support initiatives and campaigns to increase awareness amongst individuals and communities. Women with low socioeconomic status are particularly vulnerable

and may need special social support.

Women experience more symptoms (especially breathlessness), have a more impaired quality of life and suffer from more exacerbations than men.^{1,6,7} This means that women may benefit from closer monitoring of their exacerbation risk, symptoms and quality of life. Primary care professionals need to be aware of these differences and use validated tools to assess breathlessness and impaired quality of life. Practical tools such as Medical Research Council (MRC) and modified Medical Research Council (mMRC) Breathlessness Scale, Clinical COPD Questionnaire (CCQ) and COPD Assessment Test score (CAT)^{8,9} have been suggested for use in primary care. See the IPCRG COPD wellness assessment tools desktop helper for more information.¹

Asthma is more common in women,² so AsthmaCOPD overlap (ACO) is also more prevalent in women than in men and both diagnoses need to be considered in order to institute correct treatment.

DIFFERENT COMORBIDITIES: MORE DEPRESSION, ANXIETY AND OSTEOPOROSIS^{1,3}

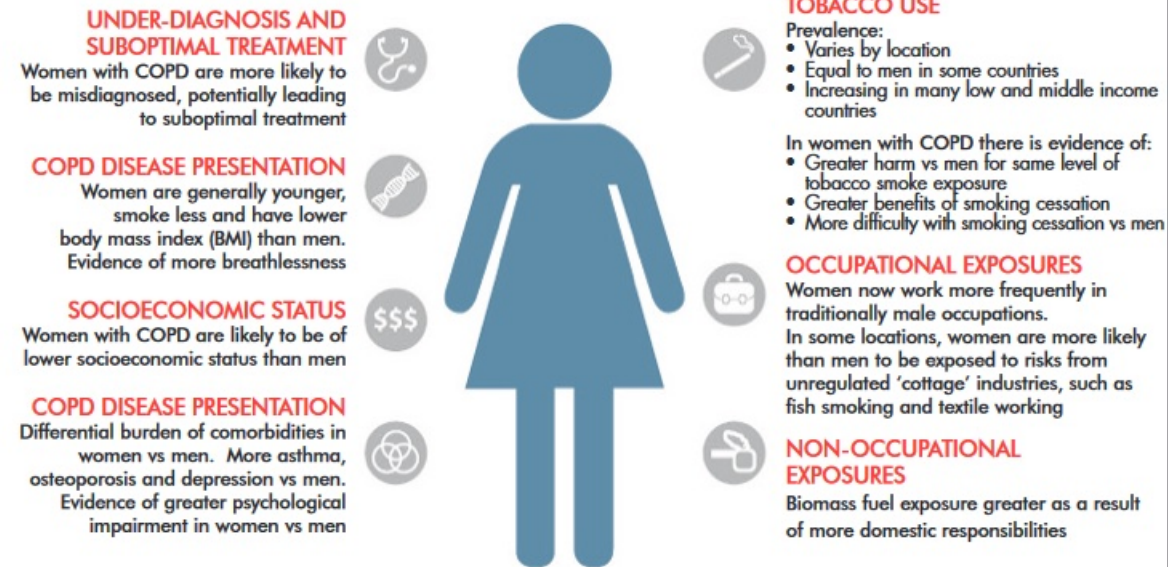
Women are more likely to suffer from depression and anxiety than men.^{1,3} This is important as anxiety influences breathlessness, and depression and/or anxiety are strong determinants of quality of life. A prompt diagnosis enables the depression and/or anxiety to be appropriately managed and will improve quality of life. Simple questionnaires like PHQ4 and PHQ9 have been tested and validated in primary care. Osteoporosis, which may be a side effect of high dose inhaled and/or frequent oral corticosteroid use, is also more prevalent in women than

Some of the validated questionnaires commonly used in primary care

mMRC	http://goldcopd.org
MRC	https://www.mrc.ac.uk/research/facilities-and-resources-for-researchers/mrc-scales/mrc-dyspnoea-scale-mrc-breathlessness-scale/
CCQ	http://ccq.nl/
CAT	http://www.catestonline.org/
PHQ4	http://gihep.com/phq4/
PHQ9	https://patient.info/doctor/patient-health-questionnaire-phq-9
GAD7	https://patient.info/doctor/generalised-anxiety-disorder-assessment-gad-7

Figure 1 The impact of COPD in women.

Reprinted from Chest, 151(3), Jenkins CR, Chapman KR, Donohue JF, Roche N, Tsiligianni I, Han MK. Improving the management of COPD in women, 686-696, Copyright (2017) with permission from Elsevier



COPD and mental health

Primary Care
IPCRG
Est. 2001
Respiratory Group

DESKTOP HELPER
No. 12 March 2022

COPD and Mental Health: Holistic and Practical Guidance for Primary Care

This desktop helper aims to raise awareness of the challenge of identifying and managing mental health problems in people with chronic obstructive pulmonary disease (COPD) and to direct primary care professionals (PCPs) to assessment tools as well as non-pharmacological and pharmacological interventions.

INTRODUCTION

Mental health problems, including anxiety and depression, are common among people with COPD and substantially impact their quality of life (QoL). In countries where tobacco smoking is prevalent, tobacco dependence is an additional factor that can significantly impact on QoL of people with COPD. However, PCPs often have low confidence to treat these problems due to the complex inter-relationships between them and symptoms such as breathlessness, which make assessment and treatment challenging. Estimates suggest that about 30% of people with COPD have comorbid depression (increasing to up to 50% with increasing COPD severity), and between 10% and 50% have comorbid anxiety.¹⁻³ Prevalence increases with age and as symptoms of COPD worsen, and they can co-exist.⁴⁻⁶ Globally, about 20% of people smoke tobacco,⁷ although this varies by country, and about 20% of them will develop COPD.⁸ Despite this increased risk, smoking rates remain high following a diagnosis of COPD.⁹⁻¹⁰ Meta-analysis guidelines that focus on only one element are inadequate and guidance for PCPs is lacking.

COPD AND MENTAL HEALTH

Despite strong evidence of a high prevalence of depression and anxiety in people with COPD these comorbidities are underdiagnosed and undertreated. COPD-related depression and/or anxiety is associated with poorer QoL, more persistent smoking, worse adherence to treatment plans, more hospital admissions, readmissions and exacerbations, lower self-management rates, poorer survival and higher care costs than for people without psychological comorbidities.¹¹ Indeed, breathlessness, depression, anxiety and exercise tolerance are more correlated with health status than the widely used spirometric values.¹² People with COPD often report feelings of isolation and mental illness can increase this isolation due to social and self-imposed stigma resulting

BREATHLESSNESS AND PSYCHOLOGICAL DISTRESS

Breathlessness is a core and complex symptom among people with COPD. It is not only the subjective perception of breathlessness but a person's reactions and responses to the sensation that matter.¹³ The 'Thinking' negative cycle in the Breathing-Thinking-Functioning (BTF) model (see diagram above) offers a way of understanding how thoughts affect and are affected by breathing and also physical activity; it also suggests how we can break these cycles.¹⁴

TOBACCO USE AND POOR MENTAL HEALTH

While smoking rates are not high among people with COPD in all countries, where

in a cycle of decline which can impact QoL and impair adherence to COPD treatment.^{13,14}

Attention to the sensation of breathlessness, memories of past experiences, misconceptions and thoughts about dying can contribute to anxiety, feelings of panic, frustration, anger and low mood, which in turn reinforce unhelpful and unrealistic thoughts and images. Conversely, interventions to address these negative thoughts in relation to breathlessness and manage symptoms of anxiety and low mood have the potential to improve QoL and improve adherence to COPD treatment.

Reproduced with permission of the Cambridge Breathlessness Intervention Service.¹⁵

Click on image to download the English version of the pdf.

With special thanks to Anna Spathis (contributor) and Steve Holmes, Nazim Uzzaman and Oscar Flores-Flores (reviewers)

Breathing and feeling well through universal access to right care

COPD and Mental Health Slide set

COPD and Mental Health Film - Amanda Barnard interviewing Ioanna Tsiligianni

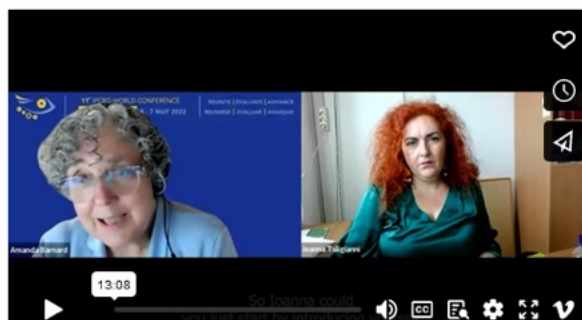


Table 1: Assessment of mental health problems in people with COPD

Many tools have been used in research settings, but in clinical practice PCPs are familiar with these easy-to-use tools:

- The WHO-recommended Patient Health Questionnaire 4 (PHQ-4) for very brief measurement of depression and anxiety. This tool can be completed online. Questions 1 and 2 are the GAD2 anxiety subscale; Q3 and Q4 are the PHQ2 depression subscale. A score of above 3 on either indicates further evaluation should be undertaken with, for example, the Patient Health Questionnaire 9 (PHQ9) or Generalised Anxiety Disorder Scale (GAD7).

Over the last 2 weeks how often have you been bothered by these problems:

0 = not at all; 1 = several days; 2 = more than half the days; 3 = nearly every day

1. Feeling nervous, anxious or on edge	0	1	2	3	A score of 3 or more considered + for anxiety
2. Not being able to stop or control worrying	0	1	2	3	
3. Little interest or pleasure in doing things	0	1	2	3	A score of 3 or more considered + for depression
4. Feeling down, depressed or hopeless	0	1	2	3	

Categories of psychological distress based on total score:

- None: 0-2
- Mild: 3-5
- Moderate: 6-8
- Severe: 9-12

Source: https://qxmd.com/calculate/calculator_476/patient-health-questionnaire-4-phq-4.

- The PHQ9 is used to assess depression, consists of 9 items with a cut-off score of 5 and is available in multiple languages.
- The GAD7 is used to assess anxiety and is a 7-item self-report scale, with a cut-off score of 10. The GAD7 is also available in multiple languages.

These tools may be most useful in screening for depression and anxiety and in clarifying a suspected diagnosis.

Remote respiratory consultations

INTRODUCTION

Remote consultations have become a normal, and in some regions, the only, method of contact for routine visits for respiratory conditions during the COVID-19 pandemic. This has arisen to protect both patients and healthcare professionals. Our expectation is that this situation will influence future provision: new "desire lines" have been created and we anticipate both face to face and remote consultations will become a normal part of the model of respiratory care globally. Questions remain about the balance, how to protect patient choice, clinician and patient safety and how to reduce inequity. This desktop helper provides some answers. Policy implications are described separately.

WHAT, WHERE, WHEN?

Remote respiratory consultation is any consultation without physical contact between the HCP and the patient, for example via videocall, telephone or web-based devices. It may also include consultations where patients are in a separate room and communication is via a telephone or intercom for viral infection control.

Telephone consultations have been a common feature of primary care (typically not reimbursed), usually accompanied by face to face later, the use of video-consultation was previously rare but has accelerated during the COVID-19 pandemic.

Primary care relies on developing close, continuous relationships with patients, using talk, eye contact and touch; where the way the patient behaves, walks and coughs drives the diagnosis. These and "doorknob"/secondary agenda moments can be hard to replicate remotely. In addition to patient choice, sustainability may be a challenge.

Use remote respiratory consultations for:

- Routine reviews
- Medication review, including polypharmacy
- Inhaler technique training and evaluation (single or group)
- Triage of known patient with new onset breathlessness
- Education and support (individual or group)
- Pulmonary rehabilitation (individual or group)

HCPs report online consultation fatigue and cognitive stress as well as a loss of connection, satisfaction and identity when the rituals of face to face contacts are lost.¹ But remote consultations reduce travel, improving the carbon footprint.

Routine management & review

This is the best opportunity for remote consultations, with appropriate preparation by both HCPs and patients. However, consider:²⁻⁵

Suggests remote consultation:

- Patient preference eg neutral location
- Their comfort with technology, e.g. apps for monitoring; note-taking; record-keeping
- Access to smartphone or webcam
- Travel or parking difficulties, financial issues
- Value of involving family living apart from patient
- Opportunity to gain insight into home situation
- Has equipment for observations: O₂ saturation, temperature, blood pressure, peak flow
- Where face to face puts individual at risk

Suggests face to face:

- Preference for the traditional approach
- Complex needs
- Hearing or sight problems
- Low digital literacy
- No access to internet
- Low trust for accuracy, safety or confidentiality of remote consultation
- Lack of privacy at home

Be conscious of how the community might perceive any variation in approach between patients. Avoid increasing inequity for those who cannot use or afford apps or other home-based technology.

Multidisciplinary consultations

Patients with multiple comorbidities may benefit from a joint remote consultation with their primary HCP and other specialists. However, be mindful that speaking with several people at the same time remotely can be overwhelming. Check understanding during the call, or in a follow-up call.

Telephone triage^{6,7}

This can be used to decide which patients need face to face contact. However, there

is currently limited evidence on value beyond infection control. If a patient reports any red flag symptoms during a remote consultation, conduct a usual urgent review either face to face or via video, or direct them to emergency care.⁸

Assessment of exacerbations

If a patient is already under the care of a community respiratory service and is well-known to you, assessment of new onset breathlessness and decisions about the diagnosis, whether to escalate treatment and action may be possible remotely even using the telephone alone. Provide self-management tips; check these are understood.

Diagnosis

IPCRG colleagues advise remote consultations for diagnosis are only appropriate when the need for infection control is paramount. They may be sufficient to assess probability of diagnosis and inform a trial of treatment alongside mitigation of any risk factors.⁹ Video offers the closest match to a face-to-face consultation that employs looking and listening. Include a structured clinical assessment with a focus on meticulous history taking. If the patient has a peak flow meter, diaries can be useful. Questionnaires may help. Defer referral for additional testing such as spirometry (if this is available safely), chest X-ray or computed tomography but follow up later if circumstances allow. Asthma is a variable disease therefore several consultations will probably be needed to confirm the diagnosis and perhaps with more than one HCP if additional tests are needed. Communicate this to the patient in terms of probability, explaining the diagnosis has been reached by their clinical team who suspect that it is, for example, asthma. Help your patient navigate to approved information and ensure they are clear what to do if their symptoms do not improve or worsen. Be sure to spend time on your patient's understanding of the situation.

Group consultations

Effective group and supportive consultations can be carried out remotely and offer the opportunity to gain from several experts in

one session. They may help the patient feel in the epicentre of care, and also give them confidence to ask more questions. This may spark support between the patients themselves, facilitated and guided by the HCP.

PROVIDING THE REMOTE RESPIRATORY CONSULTATION

Prepare well: use checklists (green boxes). Follow a structured approach, noting types of talk (Figure 1), and need for "tidying up" after the consultation e.g. email or messaging with links to further information. Consider that the consultation may take longer than a face to face consultation when you might talk with the patient while simultaneously taking observations or evaluating their overall health status.

App-based technology: examples

- MyHealth (UK; paid for) eg myCOPD and myASTHMA
- SanIQ (Germany; paid for)
- Hailey™ (free): medication monitoring for asthma and COPD
- Smart Peak Flow (free): Smart sensor technology to track PEF
- AsthmaTuner (Swedish and English)
- MASK Air (for allergic rhinitis)

Checklist for HCPs (some could be done by trained receptionist/administration)

- Am I aware of this patient's needs?
- Can I access their medical history?
- Do I know the patient's goals?
- What is their physical, smoking and mental health status?
- Do they have access to a phone, smartphone, tablet or computer?
- Should I be expecting any questionnaire results or peak flow diary?
- Do they have access to respiratory function testing equipment?
- Can they use it correctly?
- Do I need to see them – if so, is a video-consultation possible?
- Is the family/home condition supportive?

Checklist for patients

- Have I completed any tests, diary or questionnaires my HCP has sent?
- Have I prepared a list of questions for my HCP?
- Am I in a quiet and private place?
- Which symptoms are bothering me most at the moment?
- Do I have my medications to hand, including my inhaler(s)?
- Do I have a pen and paper to hand to make notes?
- Do I have my glasses with me (if I need them)?

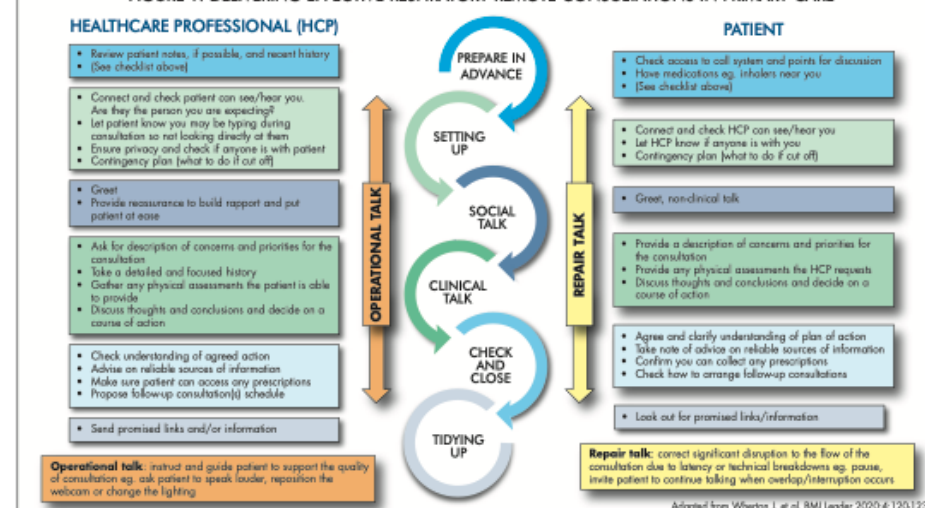
*You may prefer to complete these with your HCP during the consultation

Useful tests that can be done remotely*

- Vital signs – temperature, pulse and respiratory rate - <https://www.youtube.com/watch?v=YCWtqKilHQ>
- Peak flow test – <https://www.asthma.org.uk/advice/manage-your-asthma/peak-flow/>
- 1 minute Sit to stand
- Inhaler technique – <https://www.asthma.org.uk/advice/inhaler-technique/>
- Pulse oximetry – <https://www.youtube.com/watch?v=YCWtqKilHQ>
- Breathlessness questionnaires
 - MRC Breathlessness Scale - www.pcrs-uk.org/mrc-dyspnoea-scale
 - Modified MRC - <https://academic.oup.com/acmed/article/67/6/496/4095219>
- COPD questionnaires
 - COPD Assessment Test - <https://www.catestonline.org/>
 - Clinical COPD Questionnaire (CCQ) - www.ccq.nl
- Asthma questionnaires
 - Asthma Control Test - <https://www.asthmacontroltest.com>
 - CARAT - <https://core.ac.uk/download/pdf/62692897.pdf>
 - RCP 3 questions - <https://dx.nice.org.uk/topics/asthma/management/follow-up/#the-royal-college-of-physicians-3-questions>
- See IPCRG guide to tools here: [asthma https://www.ipcr.org/resources/search-resources/users-guide-to-asthma-control-tools-2016](https://www.ipcr.org/resources/search-resources/users-guide-to-asthma-control-tools-2016) and [COPD https://www.ipcr.org/sites/ipcr/files/content/attachments/2019-10-23/ipcr_users_guide_to_copd_wellness_tools.pdf](https://www.ipcr.org/sites/ipcr/files/content/attachments/2019-10-23/ipcr_users_guide_to_copd_wellness_tools.pdf)

* Links are to some open source videos and instructions – note none were designed specifically for remote consultations

FIGURE 1: DELIVERING EFFECTIVE RESPIRATORY REMOTE CONSULTATIONS IN PRIMARY CARE



References: 1. Hyman P. JAMA Intern Med. 2020;160(11):1417-1418. 2. Nalid E, et al. JNIR Med Inform 2019;7:e13042. 3. Cunniff MA, et al. BMJ Global Health 2019;4:e001629. 4. Thyagarajan A, et al. BJGP Open 2020;6:bjgpopen2020101020. 5. Jeyaraj K, et al. Clin Res Res 2020;2:14. 6. McNulty B, et al. BMJ 2017;358:m14345. 7. Newbould J, et al. BMJ 2017;358:m14345. 8. Cleverly J, et al. BMJ 2020;369:m2092.

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PR

programme of prescribed exercises preferably face-to-face but possibly structured home-based with telephone or internet support, and flexible educational approaches.⁴ We have used our network's experience to offer guidance on how they do it.

The basic elements can be relatively easy to set up:

- 1. Location:** accessible. Assessment sites and group classes can be held in different locations. If transport is unavailable, consider home-based. Spread of locations may increase uptake.
- 2. Facilities:**
 - a. For assessment: space for initial walk test.
 - b. For programme: aim for a space for groups of 6 or more, available for a minimum of 1.5 hours twice a week (1 hour exercise, 30 mins education) for a minimum of 6 weeks. Replicate normal life as far as possible e.g. air-conditioning is not necessary; run programmes outdoors. Non-healthcare environments are acceptable. Consider including induction in a facility participants might use afterwards.
- 3. Timing:** should be flexible based on the needs of the participants to ensure maximum participation. Allow a rest day between exercise classes.
- 4. Equipment:** can be varied and low-tech as long as it delivers aerobic and strength training e.g. walking aids, dumbbells, bottles with sand, resistance bands, ankle weights; a phone or clickers for timing and to count; printed scoring systems for perceived difficulty of exercise, self-recording sheets and diaries for home sessions. Add pulse oximeters for assessment. For the education sessions: inhalers and inhaler technique training devices.
- 5. Referral and feedback processes:** negotiate this locally and aim for as many referral sources as possible. Write down the referral process and educate referrers about who, how and when to refer individuals (include current smokers and people using portable oxygen). Request referrer's direct phone number/email to enable easy communication especially about attendance and post PR performance.
- 6. Templates and tools:** have simple templates and tools to support the assessment, prescription and progression of exercise and education for patients. More here
- 7. Staff:** use trained, knowledgeable staff e.g. physical therapist, nurse specialist, family physician. There is no right answer to the skillmix required to assess, deliver and support ongoing rehabilitation safely. It will depend on the local context and standards. Aim to create a team who can travel to different locations.

Importance of Exercise

The prescribed exercise programme must be personalised to gain benefit from the programme.

Exercise programmes should be designed according to the **FITT principle** and be as specific as a drug prescription:

Frequency (dose) e.g. minimum 6 weeks; aerobic exercise 5 days a week: 2 in a PR programme, 3 at home

Intensity (dose): use the initial test for endurance (minimum 60% VO₂ max) supported by a perceived exertion scale and repetitions for strength (e.g. 10 rep max, or 50-80% of 1 Rep max or OMNI) e.g. 3 x 10 with a rest between sets

Time (duration): Aim for 30 minutes of continuous aerobic exercise (this doesn't include warm up and cool down). If 30 mins is not possible aim to accumulate 30 mins and try to reduce rests.

Type (modality) e.g. aerobic: walking or cycling; strength: upper and lower limb exercises with weights (e.g. step-ups, sit to stand, biceps curls). Consider inclusion of flexibility, stretching and balance exercises as people with COPD are at risk of fracture due to osteoporosis and falls.

Delivering the programme

- Create a positive, fun, supportive environment.
- Exercise should be progressed weekly aiming for 5 sessions per week of 30 mins.
- Home exercise should be prescribed and monitored. The home programme should be based on the centre-based model of delivery.

Education: examples at www.ipcr.org/PR

Teach breathing control techniques to be used during and after exercise. Offer psychological support to enhance coping (e.g. with fear of breathlessness, illness exacerbations, adjustment to lifestyle and identify changes) and to address barriers to adherence and completion, e.g. Cambridge model. Also include: What is the condition and its cause(s); how to protect your lungs: smoking cessation and avoiding indoor biomass smoke, the role of physical activity; goal setting; relaxation; diet and nutrition; medicines optimisation; exacerbation plans; communication with the health team; advanced care and end of life; relapse prevention and maintaining changes.

A Prescription for Success: examples www.ipcr.org/PR

- Run 6-week programme with 2 sessions a week. Groups tend to be for 6-



DESKTOP HELPER No. 7 July 2017

Pulmonary Rehabilitation in the community

A Referrer's Guide: The essential things you need to know about pulmonary rehabilitation to help breathless people breathe better, feel good and do more!

What is the essence of Pulmonary Rehabilitation?
Pulmonary rehabilitation (PR) is a structured programme tailored to an individual's needs to reduce their breathlessness, improve their quality of life (including their fear of breathlessness), and improve their exercise capacity. The intervention therefore improves people's ability to participate in daily life. It is an exercise-based programme accompanied by self-management education to help people live better with chronic lung disease. It is fundamental to, and should be integrated into, their overall care. PR has also been shown to reduce threat of expensive services such as hospital inpatient care. It can be delivered safely in the community, outside of hospital. Despite its proven clinical and cost-effectiveness, PR is widely underused.^{1,2}

Who is PR for?
PR is for adults of all ages who are functionally limited by their breathlessness despite current management.

Why is it important?
People with chronic lung conditions like COPD become breathless with little exertion and this can be very frightening for them and their families or carers. As a result, people may avoid activities which make them breathless, leading to physical deconditioning, demoralisation and potentially social isolation. There are two essential messages to communicate, even if difficult for many breathless people to understand and healthcare professionals to convey:

"Breathlessness whilst moving around is NORMAL."
"It is not harmful or dangerous to feel short of breath whilst moving."

"This has given me a new lease of life. I go out again. You can combine having (a lung condition) with living a normal life. I no longer feel 50 years old, I feel 20 again."

"When you learn to control your breathing, you can learn how to exercise properly."

"Until you (group facilitator) came along, my life was purgatory. I didn't know what was going on or how to cope. Now I know what to do when I'm breathless. I no longer go into a blind panic. I am in control of my breathing."

Your role in optimising acceptance and use of PR:
consultation: see the examples at www.ipcr.org/PR
ASK about breathlessness: "How has breathlessness changed your life?"
"What troubles you most about being breathless?" Use a Breathlessness Scale e.g. MRC
ADVISE: "PR helps you breathe better, feel good, do more/return to work (if applicable) and I strongly recommend it. Have a look at what other breathless people say about it."
ACT: Patients interested in going to PR will require support. What you say to them will depend on what support is available and accessible. But every patient can be congratulated and informed about the next step.

Diagnosis	GP referral	Assessment
Person is not diagnosed or receives wrong diagnosis	GP does not believe in or communicate the importance & benefits of PR	Person does not consent for their assessment
Maintenance	Ongoing Programme	Start of Programme
Person does not maintain activity after the programme	Person does not complete the programme	Person does not turn up to begin their PR programme

1. Know the pathway and how to refer. Advocate for inclusive referral criteria and apply them.
2. Use "handoff" between clinicians: e.g. refer to an expert to assess breathlessness or refer directly to a PR programme.
3. Take a systematic approach to assessment of breathlessness: MRC, breathlessness scales, etc.
4. Clarify the payment - know who will pay and how to get their commitment.
5. Be aware of what PR is available, go and see a session.
6. Anticipate individual concerns about perceived lack of benefit/feasibility: collect evidence of success e.g. handwritten testimonials and photographs (with consent) or ask the provider for these. Be confident and enthusiastic.
7. Inform the wider community of its benefits and promote it using familiar and accessible language and stories.
8. Get feedback from the provider about an individual's progress and challenges. They will have 24 hours or more of direct contact.
9. Think about offering psychological support, which may be a psychologist in the programme or peer support, or direct care or referral to a psychology service.
10. Participate in audit to identify non-adherence. Modify your advice accordingly.
11. Plan for drop-outs and allow re-entry into the programme.

What marks out a good programme?
If there is a choice or you have the authority to influence provision, select a service that:

- Has trained staff with expertise in chronic lung disease
- Tailors the programme to the individual's specific physical, social, cognitive and psychological needs
- Offers on-the-spot personal advice on breathing techniques, and the psychological management of fear of breathlessness
- Prescribes and adjusts exercising to FITT principles (see over page).

What does good quality COPD care look like?

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Management

- 3 A primary care team competent to classify the stage and type of their link to disease over time using spirometry, quality of life and exacerbation history and competent to assess other morbidities.
- 4 Long term holistic management according to the guidelines including vaccination, counselling and treatment if they are tobacco dependent, pharmacological and non-pharmacological treatment and referral eg to pulmonary rehabilitation, end of life care. *Desktop helpers 3 (supportive & palliative approach), 4 (quit smoking), 6 (ICS and ICS withdrawal), 7 (pulmonary rehabilitation), 8 (women & COPD), 10 (multi-morbidity) and 12 (mental health), www.ipcrq.org/copdwheel*
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- 9 A structured assessment of their symptoms, wellbeing, inhalation technique, future risk and support needs at acceptable intervals with additional follow-up after an exacerbation or a change in management. *Desktop helper 3.*

When their COPD cannot be managed in their usual primary care

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*Interactive version available with hyperlinks. Scan the QR code.



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Right Breathe



Inhaler prescribing information



Inhalers

Search, filter and find the right inhaler from all those currently available

➔ Inhalers



Spacers

Start your search for the right inhaler by choosing a spacer

➔ Spacers



Pathways

Find the right inhaler by choosing a point on a local, national or global pathway

➔ Pathways

**Dry powder inhalers (DPIs) are
always better than metered
dose inhalers (MDIs):
do you agree?**

The best inhaler is the one that
contains the **right drugs/
molecules** for your individual
patient with COPD, which the
individual is **willing to, able to
and does** use correctly.

**Do your patients use their
inhalers competently?**

Patients generally overestimate the
adequacy of their technique: over
two-thirds make at least one error
when using an inhaler.¹

Incorrect technique can only be
uncovered by asking the patient to
demonstrate it. Regular observation
and coaching will improve
technique over time.²

1. Press VG et al. J Gen Intern Med 2012; 27(10): 1317-1325.
2. GOLD. Global strategy for prevention, diagnosis and management of COPD. Available at: <https://goldcopd.org/>. Accessed May 2024.

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What options does someone with COPD have for treatment?



Reduce risk factor exposure



Get recommended vaccinations



Use your inhaler



Healthy diet & nutritional support



Take other prescribed medicines



Physical activity & pulmonary rehab

People with COPD benefit from vaccines, non-pharmacological and pharmacological interventions to help them manage their condition and their symptoms.¹ Discuss all with them and refer as appropriate.²

1.IPCRG. COPD Wheel. Available at: www.ipcrg.org/copdwheel. Accessed May 2024.

2.IPCRG. Desktop Helper No. 3. Available at: <https://www.ipcrg.org/dth3>. Accessed May 2024.

Do you know that GOLD now recommends 6 vaccinations to protect people with COPD? Can you name them and what they protect against?

1. Influenza
2. SARS-CoV-2 (COVID-19)
3. Pneumococcal (community-acquired pneumonia)
4. Respiratory syncytial virus (RSV)
5. Tdap (pertussis/whooping cough) if not vaccinated in adolescence
6. Herpes zoster (shingles)¹

1.GOLD. Global strategy for prevention, diagnosis and management of COPD. Available at: <https://goldcopd.org/>. Accessed May 2024.

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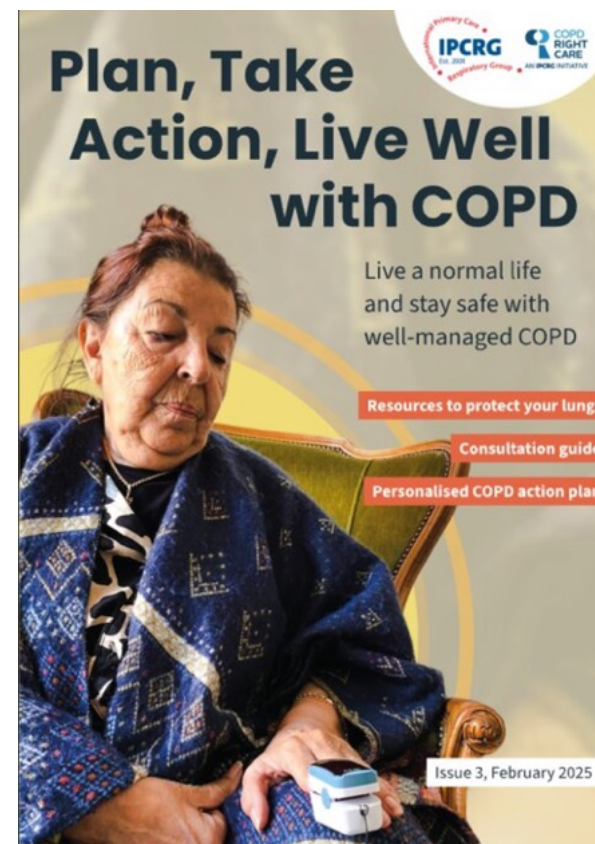
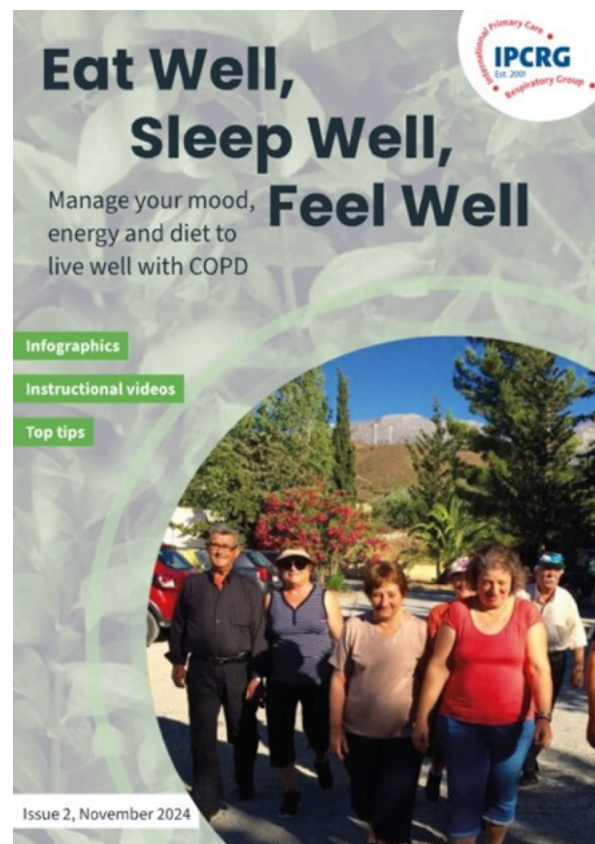
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*Interactive version available with hyperlinks. Scan the QR code.



COPD Magazine: www.ipcrg.org/copdmagazine



COPD Magazine: edition 1

www.ipcrg.org/copdmagazine

- Addresses breathing exercises and physical activity
- Now in English, Dutch Spanish, French, German, Italian, Portuguese, Bengali, Georgian
- Tested at Scientific Meeting Conversation Café Munich May 2023
- Further focus groups in UK and Netherlands



Click the image to open the magazine

Click [here](#) to view the magazine.

Edition 1 Translations

28 Nov 2023

COPD Magazine: Breathe Well, Move More, Live Better Edition 1 (Bengali/বাংলা)

[Other](#)

13 Apr 2023

COPD Magazine: Breathe Well, Move More, Live Better Edition 1 (French/Français)

[Other](#)

19 Jul 2023

COPD Magazine: Breathe Well, Move More, Live Better Edition 1 (Georgian/ქართული)

[Other](#)

13 Apr 2023

COPD Magazine: Breathe Well, Move More, Live Better Edition 1 (German/Deutsch)

[Other](#)

13 Apr 2023

COPD Magazine: Breathe Well, Move More, Live Better Edition 1 (Italian/Italiano)

[Other](#)

19 Jul 2023

COPD Magazine: Breathe Well, Move More, Live Better Edition 1 (Portuguese/Português)

[Other](#)

18 Sep 2023

COPD Magazine: Breathe Well, Move More, Live Better Edition 1 (Spanish/Español)

[Other](#)

IPCRG is proud to present a new online magazine for people with COPD to support them to self manage their breathing and physical activity. It embeds links to videos our expert team has curated to educate, motivate and inspire.

We encourage clinicians to recommend it to anyone diagnosed with COPD.

IPCRG hosted an international Steering Group of practising and academic physiotherapists with a special interest in COPD and a representative of European Lung Foundation. They developed the search strategy to guide Teesside University, UK, that IPCRG commissioned to undertake the searches. The Steering Group also reviewed all the resources found by the search team to select those that they judged to be most clinically accurate and appropriate for a global audience of people with COPD.

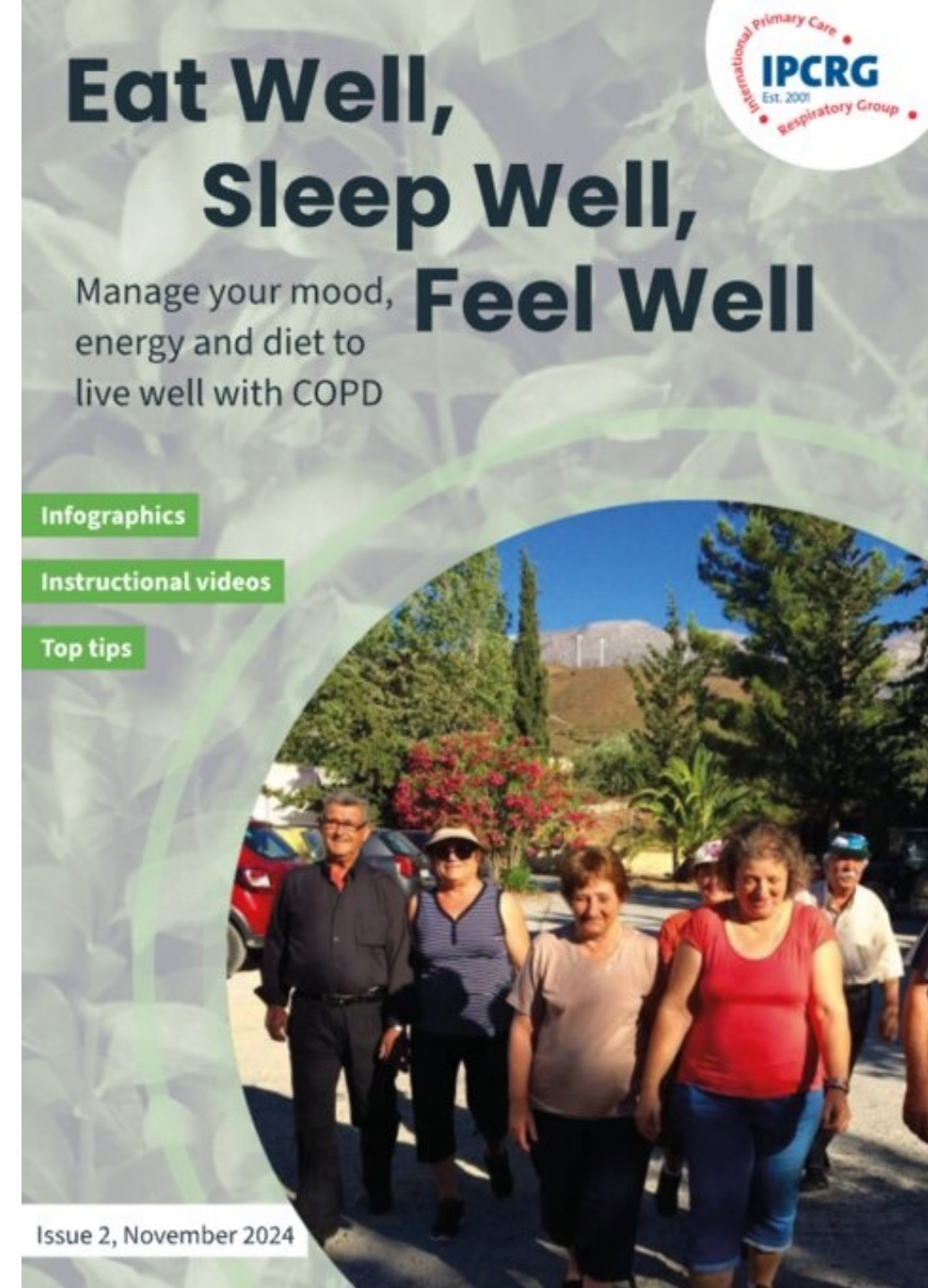
The text was co-created by the Steering Group and IPCRG. Images were sourced by IPCRG from its network.

Please share this as widely as you can and recommend it to as many people with COPD as you can to help them Breathe well, move more and live better. If you are interested in translating this resource, please [contact us](#).

COPD Magazine: issue 2

<https://indd.adobe.com/view/283c69c2-5094-4051-bac1-a05759c77dc8>

1. **Digital literacy guide** (based on feedback)
2. **Motivation & self-efficacy**
3. **Mood and mental health:** understanding emotions and breathlessness; identifying emotions; identifying depression and anxiety; coping and acceptance
4. **Energy, breathlessness and fatigue;** energy conservation/pacing; physical activity and energy expansion
5. **Sleep and COPD:** positioning for sleep; sleep hygiene; focus on quality of sleep
6. **Nutrition:** relationship with COPD; food as fuel; identifying malnutrition and getting the right nutrition; what practically stops you from eating well (e.g. cost, effort, availability, difficulty eating)
7. **Sex and relationships**
8. **Glossary of terms**

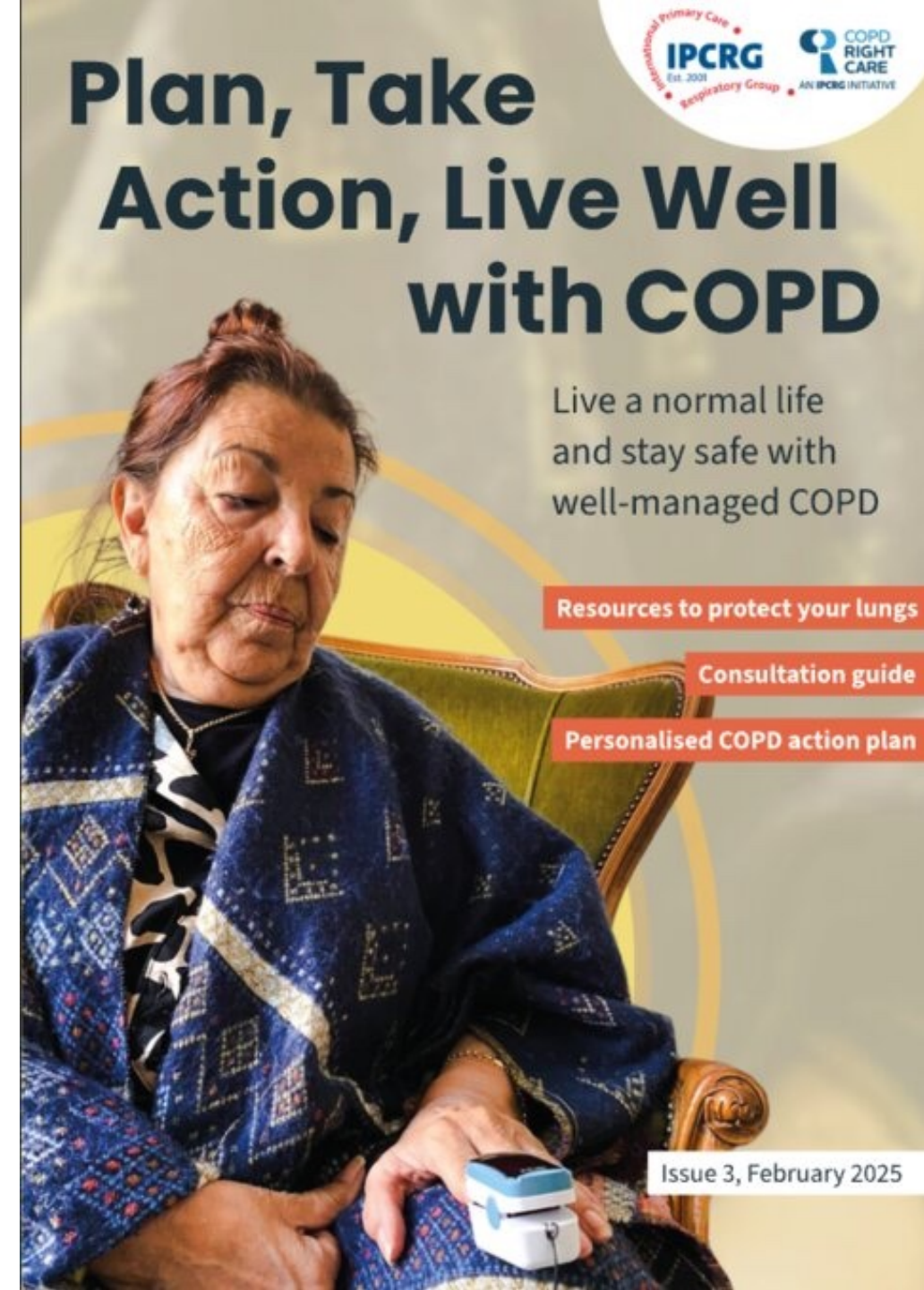


COPD Magazine: issue 3

<https://indd.adobe.com/view/42a2c866-3de0-4ab1-9da6-8096c96faf1a>

Theme: Relationship with healthcare system

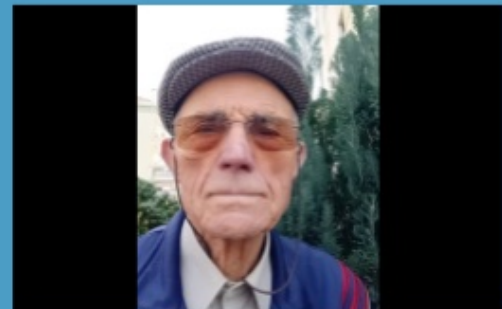
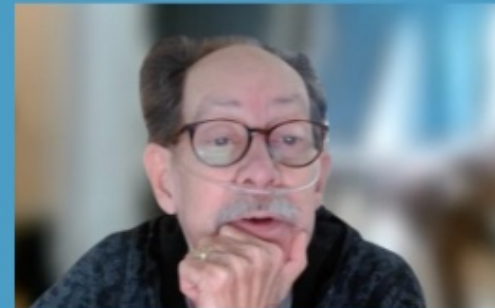
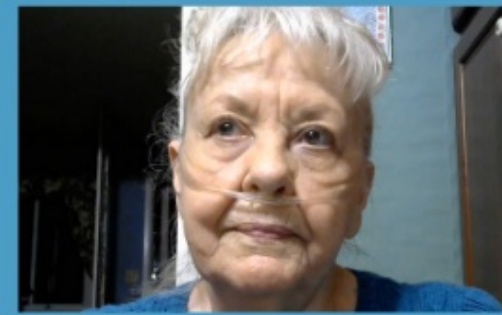
- 1. What can life look like with well-managed COPD?** e.g. living with breathlessness, prevention & occupational health, diagnosis
- 2. Staying safe and taking your medicines**
- 3. Protecting your lungs** e.g. quitting tobacco, avoiding symptom triggers
- 4. Preparing for and making the most of a consultation** e.g. noticing health changes, checklist for making the most of GP appointments, co-morbidities
- 5. Recognising flare-ups - 'bad day' or exacerbation?** Key differences.
- 6. When to seek medical help and how to explain your condition**
- 7. What happens when going into/out of hospital**
- 8. Recovering from an exacerbation - how to get 'back on track'**



COPD Magazine: video diaries

<https://www.ipcrg.org/copd-video-diaries>

- Response to feedback from edition 1 users - more videos of people with COPD talking about managing their condition everyday
- 8 people with COPD across 4 countries each recorded video diaries for 14 days
- Opportunity to candidly share experiences and offer tips to others with COPD
- Videos analysed by Teesside University and edited by IPCRG into composite videos for COPD Magazine issues 2 and 3

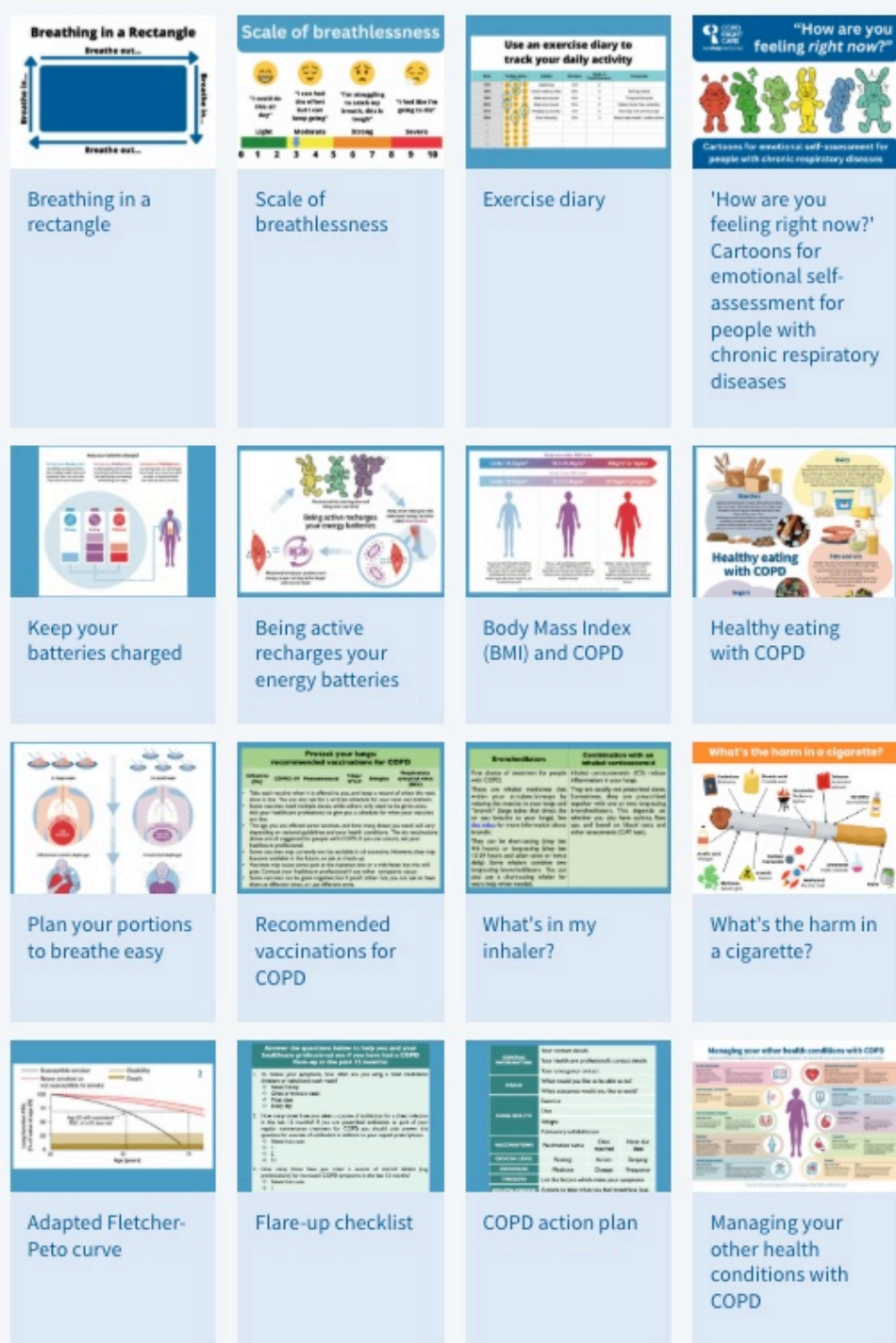


Infographics to help self-manage your COPD

- Infographics produced for primary care to share with patients
- Explain key concepts around self-managing COPD e.g. physical activity recharging energy batteries, BMI and COPD
- Practical self-management tips e.g. breathing in a rectangle, planning meal portions to breathe easy



Infographics



COPD Magazine: mood and mental health emojis

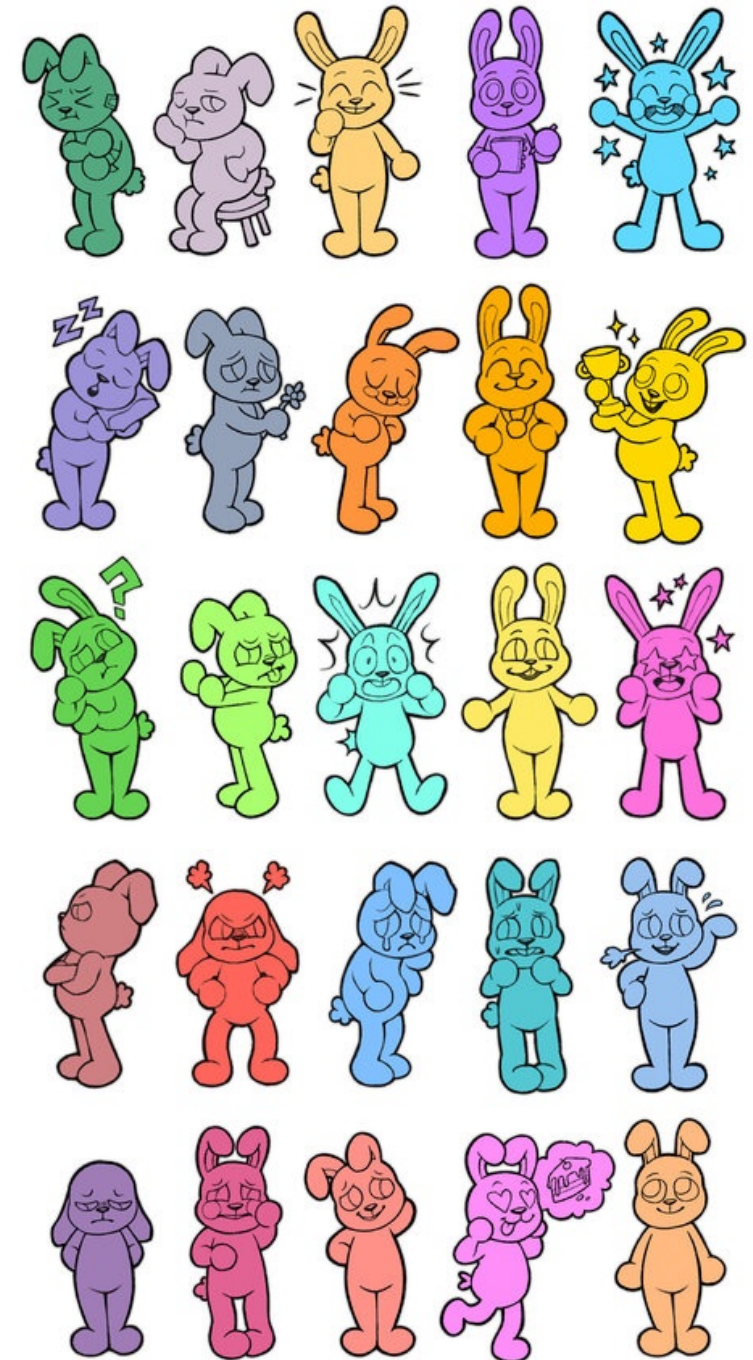


- Issue 2 addresses need for people with COPD to regularly assess their emotional wellbeing.
 - Feedback has suggested its easier to point to something rather than think about this unprompted
- IPCRG produced a brief based on the literature on taxonomy of emotions and identified selection criteria: readability, consistency and layout, ease of distinction, global health applicability and adherence to evidence base
- Reviewed drafts produced by class of cartooning MA students at Teesside University supervised by Julian Lawrence, providing 3 rounds of feedback to develop their designs

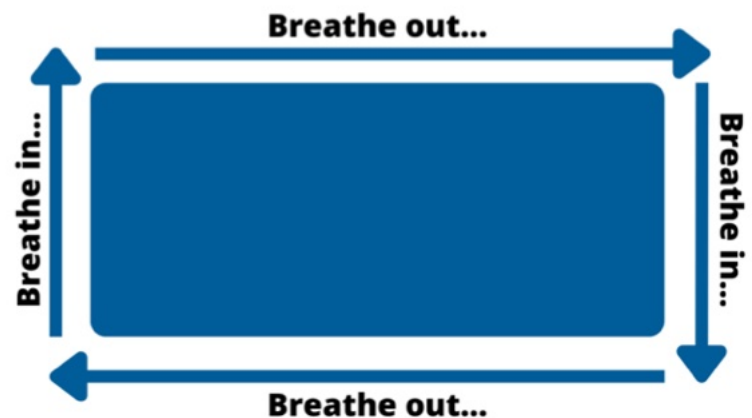
COPD Magazine: mood and mental health emojis

<https://www.ipcrg.org/emotions>

- Rabbit cartoons selected due to positive feedback from users and global primary care contacts
- Ears and tails allow clear presentation of wide range of emotions
- Editing to align with taxonomy of emotions literature
- Process created full set of 25 emotions for use in COPD magazine and to be used in primary care



How could someone with COPD regulate their breathing if they are feeling breathless or stressed?



Adapted from <https://dukinfieldmedicalpractice.co.uk/wp-content/uploads/2020/06/Post-COVID-19-information-pack-5.pdf> (accessed 27/04/2022)

Breathing in a rectangle can be done anywhere to help someone with COPD to relax their breathing or mood:¹

- Visualise or look at a rectangle
- Following the short side, breathe in through the nose
- Breathe out through the mouth as you follow the longer side
- This expels old air and provides a distraction.
- Specific timings do not matter as long as you exhale for longer than you inhale.

What other advice could you give?

1. ICPRG. COPD Magazine. Available at: <https://www.icprg.org/copdmagazine>. Accessed May 2024.

What is a safe and appropriate level of breathlessness for someone with COPD when physically active?



When doing physical activity, a person with COPD should aim for the light end of moderate breathlessness (3 on the Borg Scale). At this level, they should still be able to speak a sentence like *"I had jam on toast for breakfast"* but at a slower pace than usual. This level will improve breathing and build muscle while avoiding discomfort.^{1,2}

1. Hareendran A et al. Int J Chron Obstruct Pulm Dis 2012; 7: 345-355.
2. ICPRG. COPD Magazine. Available at: <https://www.icprg.org/copdmagazine>. Accessed May 2024.



Endorsement from the WHO Special Envoy for CRD



- *"I wanted to take a moment to express my heartfelt thanks for your incredible work on the final issue of the COPD magazine, "Plan, Take Action, Live Well with COPD." The focus on empowering patients and carers with practical resources is truly commendable. It's inspiring to see how the magazine addresses the critical aspects of interacting with health services, as well as providing actionable tools like the If-Then approach. Knowing that it includes personal stories from those living with COPD adds a valuable, relatable touch that I'm sure will resonate with many."*

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*Interactive version available with hyperlinks. Scan the QR code.



How do you explain to your patient what an exacerbation is and how to recognise it?

Try this:

“An exacerbation, or ‘flare-up’, is a sudden worsening of your symptoms. It can last for days or even weeks. You might notice feeling more breathless, more coughing or more phlegm/sputum than before, or you may feel more tired or have trouble sleeping, and/or feel confused. Someone else in your household may notice before you do, so make sure they know to look out for these signs.

To avoid needing to go to hospital, get in touch with us. You may need treatment with antibiotics and/or oral corticosteroids.”^{1,2}

See www.beflareaware.com

What are the main goals for treating COPD?

The main treatment goals for COPD are to **reduce symptoms and the future risk** of exacerbations.¹

The management strategy for stable COPD should be predominantly based on the assessment of symptoms and the history of exacerbations.

1.GOLD. Global strategy for prevention, diagnosis and management of COPD. Available at: <https://goldcopd.org/>. Accessed May 2024.

2.Celli BR et al. Am J Respir Crit Care Med. 2021; 204(11): 1251-1258.

1.GOLD. Global strategy for prevention, diagnosis and management of COPD. Available at: <https://goldcopd.org/>. Accessed May 2024.

Plan, Take Action, Live Well with COPD

Live a normal life and stay safe with well-managed COPD

Resources to protect your lungs

Consultation guide

Personalised COPD action plan

Issue 3, February 2025



'What is a flare-up and how do I know if I've had one?'

A flare-up is a sudden worsening of COPD symptoms beyond your usual variation between good days and bad days. Common signs include suddenly:

- Feeling more breathless or wheezy than usual
- Coughing more than usual
- Producing more phlegm (mucus) than usual
- Find it harder to be active
- Using inhaler more than usual
- Feeling generally unwell
- Struggling to manage everyday life

It can last for days or even weeks. Flare-ups can be difficult to recognise because they can feel different for each person. Someone else in your support network may notice before you do, so make sure they know to look out for these signs. Not everyone with COPD gets flare-ups (sometimes called "exacerbations" or "lung attacks"), but it's important to understand them as if they are left untreated, they can lead to further flare-ups and worse quality of life.

Watch this [video](#) to learn how you can identify a flare-up.

This checklist can help you work out if you've had one, and should seek help.

Answer the questions below to help you and your healthcare professional see if you have had a COPD flare-up in the past 12 months:

1. To relieve your symptoms, how often are you using a relief medication (inhalers or nebulisers) each week?
 - ☐ Never/rarely
 - ☐ Once or twice a week
 - ☐ Most days
 - ☐ Every day
2. How many times have you taken a course of antibiotics for a chest infection in the last 12 months? If you are prescribed antibiotics as part of your regular maintenance treatment for COPD, you should only answer this question for courses of antibiotics in addition to your repeat prescriptions.
 - ☐ Never/not sure
 - ☐ 1
 - ☐ 2
 - ☐ 3+
3. How many times have you taken a course of steroid tablets (e.g. prednisolone) for increased COPD symptoms in the last 12 months?
 - ☐ Never/not sure
 - ☐ 1
 - ☐ 2
 - ☐ 3+
4. How many times have you made an unplanned emergency visit to a primary care facility or hospital in the last 12 months?
 - ☐ Never/not sure
 - ☐ 1
 - ☐ 2
 - ☐ 3+

What did you score?

Question 1: Frequent use of your reliever inhaler may indicate that your symptoms are getting worse.

Questions 2-4: If you answered something other than "never" to any of these questions, you may have had a flare-up of COPD in the last 12 months. Discuss this with your doctor. Take this checklist to your next COPD appointment to discuss your options about how to improve your COPD management.

Adapted by IPCRG from <https://www.beflareaware.com/> January 2025

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- 2 A primary care service that is competent and confident in diagnosing COPD including timely, accurate and objective tests, and information about COPD, its causes, the likely timeline, how it can be managed but not cured, and the consequences of decisions about treatment and self-management. *[Desktop helper 14 \(spirometry\)](#), [desktop helper on earlier diagnosis](#), [COPD Right Care wheel](#).*

Management

- 3 A primary care team competent to classify the stage and type of their link to disease over time using spirometry, quality of life and exacerbation history and competent to assess other morbidities.
- 4 Long term holistic management according to the guidelines including vaccination, counselling and treatment if they are tobacco dependent, pharmacological and non-pharmacological treatment and referral eg to pulmonary rehabilitation, end of life care. *[Desktop helpers 3 \(supportive & palliative approach\)](#), [4 \(quit smoking\)](#), [6 \(ICS and ICS withdrawal\)](#), [7 \(pulmonary rehabilitation\)](#), [8 \(women & COPD\)](#), [10 \(multi-morbidity\)](#) and [12 \(mental health\)](#), www.ipcrq.org/copdwheel*
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- 7 To agree an individualised self-management plan including recognition of exacerbations, smoking cessation, breathing exercises, nutrition, and physical activity taking into consideration mental and physical health, health literacy and access to care. *www.ipcrq.org/copdmagazine*
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Review

- 9 A structured assessment of their symptoms, wellbeing, inhalation technique, future risk and support needs at acceptable intervals with additional follow-up after an exacerbation or a change in management. *[Desktop helper 3](#).*

When their COPD cannot be managed in their usual primary care

- 10 To have easy and timely access/referral to a primary or secondary health care professional who is skillful in COPD management whenever their COPD cannot be managed in their usual primary care.

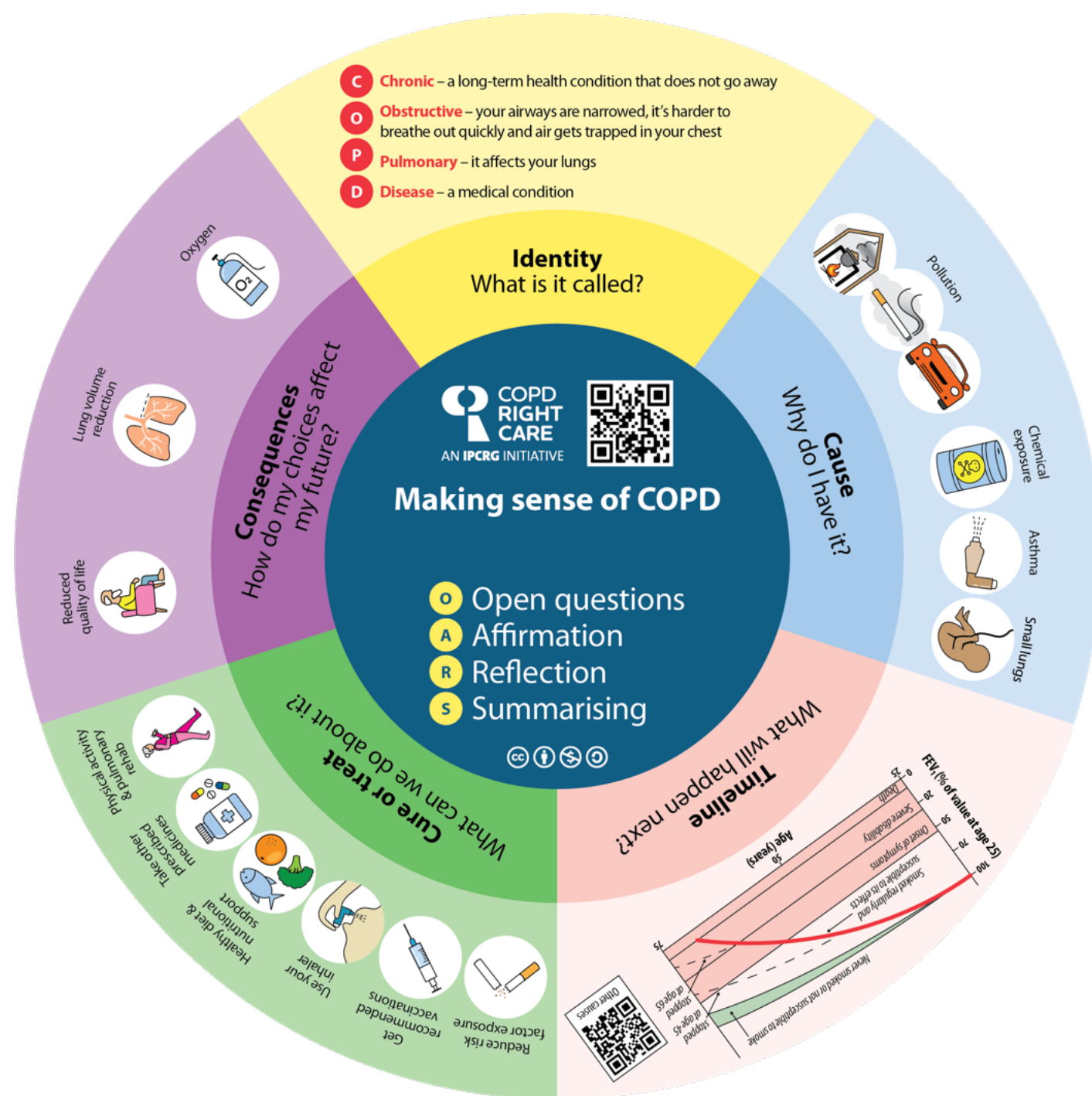


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*Interactive version available with hyperlinks. Scan the QR code.





Patient communication side draws on:

WHO-recommended OARS model for motivational interviewing
 Leventhal's common sense model 5 questions
 Fletcher & Peto
 GOLD 2022
 Co-design with primary care and patients

Palliative approach



DESKTOP HELPER

No. 3 April 2022

Improving the life of people with COPD by integrating a supportive and palliative approach from diagnosis to end of life

This desktop helper supports a long-term holistic approach to chronic obstructive pulmonary disease (COPD) management. The course and prognosis of COPD can be difficult to predict. Care is directed towards enhancing the quality of life of the individual and their family, slowing progression, reducing symptoms and preventing exacerbations, which is why palliative approaches are useful from the time the COPD diagnosis is communicated. It is important to remember that 'palliative' is a broad term for approaches that address individual needs across the spectrum of COPD.

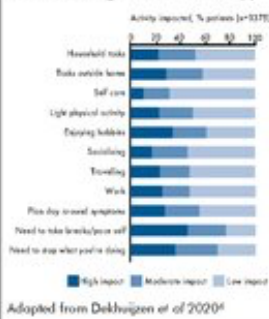
INTRODUCTION

People live with COPD from years to decades, experiencing a lower quality of life (QoL), and greater functional limitations, anxiety and depression than others who are the same age without COPD. These potentially significant changes in QoL and expectations from life may be improved with enhanced care, highlighting the need for a long-term and holistic approach to support people with COPD, their family and caregivers. Care selection is based on repeated discussion during the evolving prognosis and symptom trajectory, identifying and minimising distressing symptoms and ensuring medical, physical, social and spiritual support. This may include supporting access to supportive and financial care packages from social care and other non-medical services.¹ From beginning to end, COPD must be treated using all available appropriate therapies for COPD AND the common co-morbidities such as cardiovascular disease (CVD), depression/anxiety, diabetes, renal disease, lung cancer and osteoporosis. Treatment must be based on appropriate evaluations and knowledge of the person's functional status and personal goals at each stage of COPD stabilisation and progression (e.g. evaluated at least annually). Variations will depend on the local availability of healthcare and therapies, cultural norms and the individual's beliefs and goals.

IMPACT OF COPD

COPD is a chronic disease that impacts every aspect of life and is often diagnosed after months or years of people reducing or

Figure 1: The high burden of COPD. International survey of people with COPD receiving maintenance therapy



INCLUDING THE PREFERENCES OF THE PERSON WITH COPD IN THEIR LONG-TERM CARE

A crucial step in the longitudinal care that primary care can provide is understanding the individual's current state by assessing symptom burden (perhaps using the COPD Assessment Test available at <https://www.catestonline.org/>), functional abilities (e.g. ability to do what they consider important – work, family and social interactions, self-care), the frequency and severity of exacerbations (e.g. may be labelled as episodes of "bad colds" or "acute

to open important discussions. People living with COPD remind us — "If you ask us questions then LISTEN to our answers" (Table 1).

Table 2 provides questions to guide discussion on long-term care to help you explore the broader aspects of care and identify those areas of greatest importance to each individual.

An important advantage of care continued over months and years is that the conversations are built upon our previous discussions – our knowledge is cumulative and evolving. Understanding and documenting what the individual and family wants regarding goals, future plans and end of life care/living wills, can ensure their preferences are recorded and available when care may include hospital specialists or hospitalisation. These questions can be set in the Open questions, Affirmation, Reflective listening, Summarising (OARS) framework (see the IPCRG Desktop Helper COPD and mental health www.ipcrg.org/dth12) that helps establish and maintain rapport, assess the individual's needs and personalise your counselling and education responses.⁵

LEARNING ABOUT COMMUNITY RESOURCES

To make plans, people need to know what is available to them. Information on local and regional resources needs to be gathered and shared with them, most usefully by someone in the primary care team. In addition, home visits and telehealth video visits may show you where and how the person with COPD

Table 1: The perspectives of people with COPD—what my healthcare team needs to know!

1. My healthcare team needs to know who I am and what my functional status is and what my goals are. Without this baseline, many of the conversations take too long or are meaningless.
2. Ask me "What is a usual day's activity like for you? What have you had to give up or modify over the last few years? What do you not want? e.g. I never want to go to a nursing home."
3. Ask me "What are your thoughts about your life over the next year or if your COPD gets worse?" This is probably best done during in-person visits where the clinician can read body language and give more support.
4. Ask me "What do you and your family want us to know and put in your medical record about your goals and future plans?"
5. Many of us don't know what we don't know or what to ask. Let us know what our options are by sharing information, a website link or someone to talk to.
6. Finally, if you ask then LISTEN to our answers.

Thanks to the people with COPD who allowed Barbara Yawn to interview them.

Table 2: Questions to ask to guide broader care and to record in the medical record

Essential questions to be asked at each visit:

- What brings you here/to this visit?
- Any special concerns from you, your family or your carer?

Questions to be asked over subsequent visits to help to develop an understanding of personalised needs and goals to direct support:

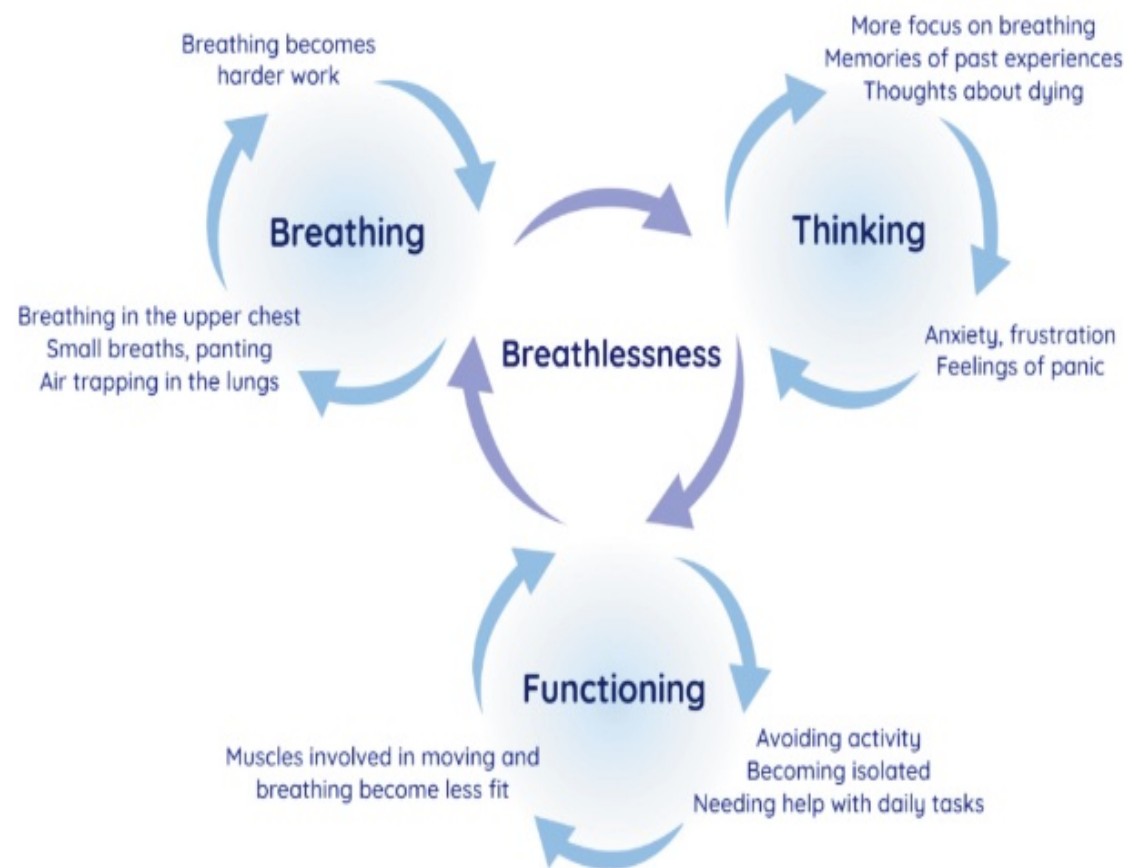
- What is your understanding of where you are with your COPD at this time?
- What are your fears and worries for the future?
- What are your goals.....if time is short?
- What outcomes/consequences/results would be unacceptable to you?

See our online Supplementary material S1 for additional questions to help with your conversations with individuals and their families. Listen to author and surgeon Atul Gawande discuss the importance of these four questions to understand people's priorities at <https://www.bbc.co.uk/programmes/b04tjdlj>

Table 3: Non-pharmacological interventions to address breathlessness and exercise capacity

Intervention	Purpose/aim
Pulmonary rehabilitation	Can relieve breathlessness and fatigue, improves emotional state and enhances person's sense of control over their condition – moderately large and clinically significant improvements
Facial cooling with a fan or cool flannel. See this video: https://www.youtube.com/watch?v=y5tBC5R8DYs	Good evidence of short-term benefit from using a fan (static or hand held), relieving breathlessness at rest and reducing recovery time after activity. Movement of air over a person's face is thought to stimulate a vagal response A cool flannel is an alternative
Mindfulness/meditation	20-minute mindful breathing reduces breathlessness in lung disease, and anxiety/depression in advanced disease; enhances non-evaluative attention and may increase self-efficacy
Relaxation techniques	Some evidence can help anxiety, breathlessness and fatigue in COPD. Guided imagery ('thinking of a nice place'), progressive muscular relaxation and counting are most acceptable
Pacing	May help breathlessness as a component of an evidence-based complex intervention
Walking aids	Can improve exercise capacity
Cognitive behavioural therapy	Problem-solving approach that challenges unhelpful thoughts/behaviours; reduces anxiety in COPD in short term; increases pulmonary rehabilitation attendance
Breathing techniques	Most studies do not find this intervention improves breathlessness, although some evidence in lung cancer and pursed lip breathing may help in COPD; however, these are a key component of evidence-based complex interventions for breathlessness
Acupuncture/pressure	Improves breathlessness in advanced disease and may reduce anxiety
Inspiratory muscle training	Conflicting evidence for impact on breathlessness; people need to be carefully selected

Figure 2: The Breathing-Thinking-Functioning (BTF) model¹⁰



Reproduced with permission of the Cambridge Breathlessness Intervention Service.¹⁰
See: <https://www.btf.phpc.cam.ac.uk/>

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Intervention	Purpose/aim	Supporting evidence
Cognitive behavioural therapy	Problem-solving approach that challenges unhelpful thoughts/behaviours; reduces anxiety in COPD in short term; increases pulmonary rehabilitation attendance.	Yohannes AM, et al. <i>J Am Med Dir Assoc</i> 2017;18: 1096.e1-1096.e17. Heslop-Marshall K, et al. <i>ERJ Open Res</i> 2018;4: 0094-2018. Pumar MJ, et al. <i>J Thorac Dis</i> 2019;11(Suppl 17): S2238–S2253.
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Relaxation techniques	Some evidence that relaxation interventions can help anxiety, breathlessness and fatigue in COPD. Guided imagery ('thinking of a nice place'), progressive muscular relaxation and counting are most acceptable.	Hyland ME, et al. <i>Int J Chron Obstruct Pulmon Dis</i> 2016; 11:2315–9. Yilmaz CK, Kapucu S. <i>Holist Nurs Pract</i> 2017;31:369–77. Volpato E, et al. <i>Evid Based Complement Alternat Med</i> 2015;2015:628365.
Acupuncture/ pressure	Improves breathlessness in advanced disease and may reduce anxiety.	von Trott P, et al. <i>J Pain Symptom Manage</i> 2020;59: 327–338.e3.
Singing therapy	Most evidence suggest singing therapy can improve lung function; some evidence suggest it may improve anxiety and QoL; anecdotal evidence of value.	Gimenes Bonilha A, et al. <i>Int J Chron Obstruct Pulmon Dis</i> 2009;4:1–8. Lord VM, et al. <i>BMC Pulm Med</i> 2010;10:41. McNamara RJ, et al. <i>Cochrane Database Syst Rev</i> 2017; 12:CD012296.
Positive psychology giving sense of control/ confidence	Not evidence-based. However, holistic breathlessness services reduce anxiety/depression and use positive psychology, improving self-efficacy.	Brighton LJ, et al. <i>Thorax</i> 2019;74:270–81. Lovell N, et al. <i>J Pain Symptom Manage</i> 2019;57: 140–155.e2.
Social presence	Experimental evidence in healthy volunteers for social presence reducing breathless perception; patients describe	Herzog M, et al. <i>Biol Psychol</i> 2019;140:48–54.

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PUBLICATIONS - EDITOR'S CHOICE

npj | primary care respiratory medicine

GOLD 2023: Highlights for Primary Care

npj Primary Care Respiratory Medicine volume 33, Article number: 28 (2023)

The Global Initiative for Chronic Obstructive Lung Disease (GOLD) has issued its 2023 annual report with significant updates compared with former versions. In this article, the authors summarise the most relevant changes for a Primary Care audience.

Statement agreed with WONCA Europe

We call for governments and payers to:

Right incentives for primary care to practise population respiratory health

Negotiate and fund the right **incentives** for primary care to practise **population respiratory health**: to go where the people in need are

Generation of real-life evidence

Fund the generation of **real-life evidence** to feed respiratory guidelines that are useful in primary care (e.g. implementation research)

Diagnosis of chronic respiratory diseases in primary care

Invest in primary care so that it can provide a timely, accurate and objective (e.g. using spirometry) **diagnosis** of chronic respiratory diseases such as COPD and asthma, tobacco dependence and exposure to indoor air pollution

Training and education for primary care by primary care

Prioritise practical respiratory **peer-led training and education** for primary care by primary care

Chronic respiratory diseases management in primary care

Invest in primary care to **manage** chronic respiratory disease, tobacco dependence and exposure to indoor air pollution applying 'right care' principles that include understanding what's right for the individual patient in their local context and removing administrative barriers (e.g. enable right to prescribe respiratory treatments in primary care)

Universal access to treatment and training

Fund **universal access** to good quality affordable and effective **vaccinations, inhaled medicines and tobacco dependence** treatment and training in how to use them

Primary care as population health educators

Endorse primary care as **population health educators** (e.g. about physical activity, nutrition, substance use and how to breathe well)

Primary care societies leveraging change

Endorse **primary care societies** that can leverage major **clinician-led change** working locally, collaborating globally

Integrated care systems for respiratory health

Support the development of **integrated care** systems for respiratory health, involving patients, their families, multi-disciplinary health and social care and secondary care